ATHEISM IN OUR UNIVERSITIES

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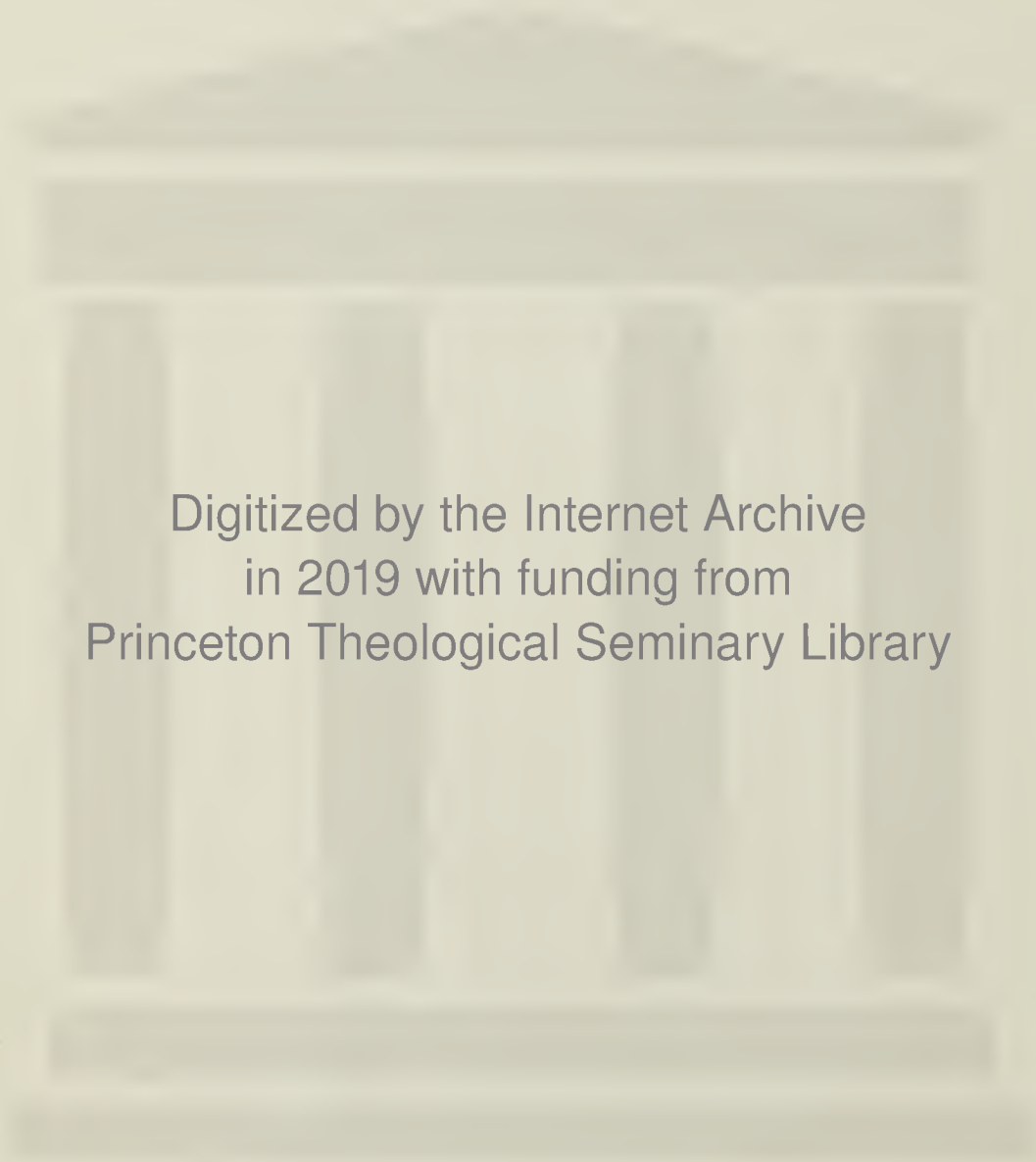
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Atheism In Our Universities

BY

ALFRED FAIRHURST, A.M., D.Sci.

Author of

"Organic Evolution Considered,"
"Theistic Evolution," Etc.

CINCINNATI, OHIO

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INTRODUCTION

MY object in writing this volume is to counteract, to some extent, the influence of the agnostic and atheistic philosophy of evolution, and that view of theistic evolution which holds that this is God's only method of working. To this end I ask that this volume be given a place in the libraries of our universities, colleges, normal schools and high schools, and, whenever the subject of evolution is taught, in as prominent a place as is given to the leading authors who favor this theory.

In most cases the books selected on this subject have been in favor of the theory of evolution, and chosen with the view of propagating this theory, while the books opposed to it have been largely ignored. This method shows a lack of intellectual fairness. The mechanical display made by a library on evolution is intended to impress the beholder with a sense of the futility of offering any opposition. The average mind casts its vote with the majority.

This philosophy of creation is now posing before the public under the name of the "scientific method," and it is commonly classed as a branch of "science." ALFRED FAIRHURST.

LEXINGTON, Ky., May 6, 1921.

PREFACE

IT has been a great happiness to me to have had even a small part in the great work to which my beloved father, Alfred Fairhurst, devoted so many years of his life. I wish that I were able to adequately portray the strength and beauty of my father's character, which seemed to me like a calm, broad stream, flowing through a turbulent world, sure in its power and majesty, and enriching the lives of all it touched.

Almost as early as I can remember, my father studied and wrote upon the subject of "evolution." His last years were concentrated upon an effort to combat the pernicious effect of the popular construction put upon the so-called Darwinian theory of evolution. I use the word "so-called" advisedly, for Charles Darwin never dreamed to what limits future generations would carry his entertaining hypothesis.

There are a number of good people in the world who sincerely think they believe in the Darwinian theory of evolution. In their human desire to follow the "lead of fashion,"

they do not realize that they are following a cult founded upon matter and force only, the foundation stone of which is an impossibility, for scientists agree upon the one fact that "life comes only from life," and, to follow evolution to its logical beginning, it is necessary to cast aside this axiom. It is to these good, but misinformed, people that my father addressed his efforts.

There is no conflict between geology and Genesis. They are only written from different viewpoints; the one with the idea of teaching the process of the physical formation of the world, the other with the object to show that the earth and all that dwell therein are the handiwork of God. The word "day" is used to express a period of time, as when we say "in that day," meaning "in that period of the world's history."

Although in many States of the Union the Bible is not permitted to be read in the public schools, in these same schools and in our universities the people's money is being spent in employing teachers who, knowing really but very little about the subject of evolution, dogmatically teach it as a "science" instead of as a "theory," and thus, little by little, slowly but surely, are sowing the seed of destructive criticism of the Bible.

It is my belief that the tide is now beginning to turn, and that a small army of leaders is forming who will carry on the good work in which Alfred Fairhurst was the pioneer who blazed the way.

It seems appropriate to give here a brief sketch of my father's life. He was born in Bruceville, Ind., on April 28, 1843, the son of Dr. William Fairhurst. His mother, before her marriage, was Margaret Bartley. He was one of a large family of brothers. He received his education at Butler College and at Harvard University. He taught for several years at Butler and at Akron, O. Later he entered the practice of law, and went into partnership with my mother's brother, John A. Holman. The latter was afterward elected judge, thus dissolving the partnership.

In 1879 he married Elizabeth Holman, daughter of George Holman, then a leading dry-goods merchant of Indianapolis. Finding his law practice to be extensive, but unremunerative, and having a growing family to be provided for, he accepted the call to occupy the Chair of Science in Kentucky University at Lexington.

He went to Lexington in 1881, and continued to fill the position of professor of science there for over thirty years. Largely as a result of his efforts, Andrew Carnegie

was prevailed upon to make a gift to the university of the handsome Hall of Science, which now adorns the campus.

After he retired from active teaching, he served as pastor in several of the Kentucky churches, and spent much time in writing and studying. In 1897 he had published his first book on the subject of evolution—"Organic Evolution Considered" (Standard Publishing Co., Cincinnati, O.). In this first volume, written largely for scientists and students of evolution, he endeavored to give a general statement of the claims of evolution as applied to the origin of organic forms, and then offered objections which went far toward invalidating those claims.

His second book on the subject, "Theistic Evolution" (Standard Publishing Co., Cincinnati, O.), was published in 1919. This book is a most concise and readable treatise on the subject, and delightfully entertaining to the average reader. In it he emphasized certain things to which he thought ministers and teachers especially ought to give the most thoughtful consideration. He held that theistic evolution destroys the Bible as the inspired word of authority in religion as effectually as does atheistic evolution. In it he warns against teaching that evolution is a *fact*, or a *science*, when it is only a *theory*, impossible of

verification. Even then, the objections to it, he urges, should be presented so that the pupil may have *both sides* to the question. He expresses the belief that the teaching of evolution should be eliminated from the primary and secondary schools, by law, if necessary, on account of the immaturity of the pupils and the incompetence generally of the teachers of such schools to properly present, explain or teach the subject.

The present volume, "Atheism in Our Universities," represents a study of this angle to the subject, and presents material collected over a period of several years. One of the pleasantest memories of my whole life, and one which will linger always, is that of the six weeks' visit which my father paid to my home in Arizona just prior to his death. However, instead of resting and relaxing during this visit, he was continually at work upon the manuscript of this book. When urged to rest, he would reply, "No, I must finish it." He was in the best of health, yet it seemed as if he knew that his time on earth was short.

For many years before his death he lectured in different cities, churches and colleges, on the subject of "Science and Religion," covering the entire range of all three of his books on the subject of evolution.

My father returned to Lexington from his visit at my home, in April, 1921. On the 13th of May, following, he suffered a partial stroke of paralysis, and the end came peacefully, eleven days later. Just three of us are left behind—mother, sister Helen, and myself.

The manuscript here presented in book form was published in the winter of 1922 in the *Christian Standard,* in the exact form in which my father left the material. He had given it a general arrangement, but had not had time or opportunity to polish it or correct small errors before his death. These he would have done before he sent it to the printer, had he lived. It has been my great pleasure to make these minor corrections in the form, so far as I could, but I have not in the least changed the subject-matter. I wish that I could have been of more assistance in this great work, and especially do I wish that I could inspire, to greater efforts, those leaders of to-day who, happily, are taking up and carrying on the good fight in which my father pioneered the way—all to the end that the influence of the Holy Bible as an authority in religion may never be destroyed, and that Christianity may be saved to the world in all its sacred purity.

MARY FAIRHURST BAUGHN.

PHŒNIX, Ariz., June 28, 1923.

ATHEISM IN OUR UNIVERSITIES

I.

LAW.

Some Introductory Considerations.

IF we include all things under the head of matter and force, then we may define law as being the manner in which force acts. The study of things that happen mechanically is a study of the action of forces.

The reign of law is not universal in the sense that a given quantity of a force—heat, for example—necessarily produces one invariable result. When mind enters the field, the process of producing mechanical results that were inevitable gives way to results obtained by intelligence, and brought to pass by free will.

It is evident that, under like conditions, a given force will act in like ways. In this sense law reigns. But conditions are not fixed and invariable under the control of mind. They

are changed by free mind, and one force is often converted into another in order to serve new purposes.

The human mind is not under the absolute dominion of the forces that prevail in the world. Any one of these forces in the inorganic world can be converted by the agency of mind into all the others in succession. When so changed they are known by different names, and are directed into new channels to do endless kinds of work. Mind, in controlling forces, must take notice of the ways in which each force acts. These methods of action of forces, laws, do not dominate mind, but mind directs the forces for special purposes.

There are no "laws of nature" which predetermine what work a given amount of the force of gravity shall do. A thousand tons of water falling over Niagara may simply warm the water which it strikes, or it may turn a dynamo that converts the force successively into mechanical motion, electricity, light, heat, chemical action, magnetism, the lifting of weights or the motion of many machines, for endless purposes. There is nothing in the mechanical processes of nature to determine what free mind shall do. Mind is an intelligent determining cause that controls forces so that they produce countless results that could never otherwise happen.

It has not been determined that the forces in the inorganic world can be converted into mind, but it is certain that mind can control these forces. They are the tools with which the mind of man has revolutionized the world. The great fact of the correlation of energy, and man's ability at will to bring it about and to control energy in all its phases, is of vast importance.

The "reign of law" does not mean the subjugation of mind. The human will is not a slave in chains at the chariot-wheels of "law," but it is the charioteer with "four in hand," directing the forces of nature to work in countless ways.

The practical results show that the will has been free to choose, and conscience is a living witness of this truth. The control of results in dealing with forces of all kinds, in all sciences and in all realms of nature, proclaims the supremacy of mind.

Mechanical force can only move matter. All work is done by force overcoming resistance. Kinetic energy is force at work. Latent energy is force stored up, as a weight at rest. Motions produced in masses of matter are resultants of the action of more than one force. Gravity is always present, producing a perceptible effect. Cohesion and adhesion oppose the modification of masses of

matter. Frequently a single force so predominates that we attribute the entire effect to that one force.

The chemical force will cause almost every element to unite with oxygen. But most of the oxides of the metals can be decomposed with hot carbon. When they are heated with carbon, the carbon unites with the oxygen of the metal, leaving the latter in the free metallic condition. In such cases, we say that the affinity of the carbon for the oxygen is stronger than the affinity of oxygen for the metal. And so we can overcome a countless number of chemical affinities by means of others. A simple equation will show the common method in chemistry of obtaining results by overcoming one force by means of another, $AgNO3+NaCl=AgCl+NaNO3$. This equation represents silver nitrate and sodium chloride as reacting on each other in such a way as to bring about the decomposition of each and the formation of two new compounds. It is evident that in this decomposition the stronger chemical force has overcome the weaker. It is said that the chlorine has a stronger affinity for the silver than it has for the sodium, and that consequently an interchange takes place.

Light, in photography, decomposes a silver compound; electricity decomposes a large

number of chemical compounds, and heat will decompose many inorganic, and the majority of organic, compounds. Chemical results, in most cases, are brought about by overcoming force with force.

The growth of the plant involves the decomposition of mineral compounds that serve as plant food. The growing plant absorbs, through the pores of the leaves, carbon dioxide, CO2, and, under the influence of sunshine, the chloraphyl in the leaves decomposes the CO2, giving off the oxygen and retaining the carbon as food. The roots of the growing plant absorb potassium nitrate, and other mineral foods in solution in the sap, and the life forces in the plant enable it to decompose these mineral foods and appropriate the useful substances, and elaborate them into organic materials, such as woody fiber, starch, sugar, vegetable oils, and protoplasm in various forms.

There is ceaseless warfare in the growing plant between the *anagenetic* (or life) forces and the *catagenetic* (or death) forces. They are pitted against each other, and the fact of living and growing in the vegetable world is due to the continual triumph of life over death—of forces in the living world that can overcome the forces in the mineral world. *Science knows no method by which the forces in the mineral world can be converted into life forces.* Herein

lies the hopelessness of "spontaneous generation."

Animal foods, with the exception of salt and water, are mostly organic, but these foods must be digested and assimilated in order to serve their purposes as food. During this process many chemical changes take place, involving a complex warfare that is not well understood. From the same foods, plants manufacture a countless number of products, and from like animal foods animals organize the most varied tissues and many peculiar chemical compounds.

On every hand, in order to obtain desired results, force is pitted against force, and the stronger overcomes. The heat of the sun lifts the water, and gravity draws it back to the surface of the earth. Thus gravitation and sunshine are opposed to each other in their effects. Each can be converted into the other. They are but two phases of the same force.

If we trace the order of creation by means of forces, we have, before life appeared, the forces in the dead world.

Next come the life forces of the plant world that can overcome the chemical forces of the mineral world. *We know of no way to convert the inorganic forces into living forces.* Ascending to the animal kingdom, we find many kinds of feelings and instincts which can not be accounted for by means of any forces

in minerals and plants. Lastly, we ascend to the free human mind, with a conscience and self-consciousness, and many other powers that can not be explained in terms of anything below. Le Conte truthfully says: "From the physical point of view, it is simply impossible to exaggerate the wideness of the gap that separates men from even the highest animal."

If man can direct the forces of nature to serve his purposes by producing conflicts of forces, is it not possible that God might perform miracles without violating the laws of nature?

Of course, I recognize the existence of law, both in the inorganic and organic worlds. Astronomy is founded largely on the action of gravitation on the heavenly bodies. The time of an eclipse can be very accurately determined, because gravitation reigns.

Atoms, under like conditions, always unite to form compounds of invariable composition, so that one analysis of a compound determines its fixed composition. Chemistry, the greatest of all sciences, is founded on the laws of atoms.

Physics determines and makes use of the laws of some of the forces of nature, such as gravity, light, heat and electricity.

In the above instances the forces work according to regular methods, and these methods we call laws.

We know that certain foods and forces determine both the form and the growth in the vegetable world. The agricultural chemist is coming more and more into his own.

We understand that certain conditions are necessary for the existence and well-being of men and animals.

Without the "laws of nature" man could not exist here. They are his sole means by which he plans for the future. A lawless world would be a godless world. Regularity in the processes of nature is of the utmost importance to the well-being of man.

While this is true, it is also true, as I have stated, that a man, a free moral agent, as declared by his conscience, is not absolutely under the dominion of the forces of nature, but he dominates certain quantities of these forces to accomplish his purposes.

His mind is not under the dominion of physical force or law, but of moral law. His moral freedom elevates him above all else on earth.

II.

EVOLUTION A FASHION.

Further Introductory Considerations.

THE question may well be asked, Why has there been such a rush by leading men in educational positions to adopt the word "evolution," when it is evident that the majority of them have given little study to the subject? The general remark that they make, even in their confessed ignorance of the subject, is that all universities and colleges teach it. When interpreted, this remark means: "We have counted noses, we have taken the vote, and the result is all biologists, all scholars, all universities, accept it, and so we are bound to believe it." Thus we extend our democracy into the scientific world, and determine truth by a popular vote. If you can only get an idea started so that people will think that it is generally accepted, then the crowd will fall into line and yell. The educational world is now in that condition with regard to the word "evolution." Seemingly it prefers "error" to being considered "out-of-date."

Whatever virtue there may be in the word when properly used, its acceptance in the majority of cases has become a fad. The folly of foot-binding by the Chinese, of tight corsets, of high heels and pointed toes, of many extreme fashions in clothing and of many other objectionable fashions—how can these be met? Regiments of soldiers, cannon and rapid-fire guns can not defeat a fashion, however foolish it may be. A fashion is due to crooked thinking by the public mind. Many years ago, it is said, there was a tulip craze in Holland that wrecked fortunes.

Few persons will dare to take a firm stand against a fashion in dress. This season's style of hat, dress or coat may not do at all for next season, although one's judgment may approve the old rather than the new. Origin, propriety and cost do not figure largely with most people. Style, the latest thing, wins. To be fashionably dressed is considered by many a mark of good breeding. To many people it is very uncomfortable not to be dressed in fashion.

A fashion represents only a form of current thought, which, like an earthquake, has somewhere a center. It propagates by contagion. It is mighty and must be noticed. The unwary are captured and bound. Reason, logic, precedent, poverty and cleverness are

not proof against it. All must submit, if they would be recognized.

A fashion is possible only because people are content to let others dictate to them. The mass of the public walks intellectually in chains; they travel the lines of least intellectual resistance marked out by others.

There have been fashions in all departments of life—in religious thought, in politics, in systems of philosophy, in eating and drinking, in sports and in all kinds of dress. The prevalent fad now among the college-bred and among those who have some claim to education is evolution. Any up-to-date college man from most of our institutions is proud to claim that he is "an evolutionist." In fact, he is afraid not to do so. To him it represents the latest culture—the finishing touch, without which a gentleman's education would not be complete.

Generally, he does not know what the word means. He may not have been in a class where evolution was taught, but, in some way, he has heard that it is the accepted "science," and so, by adoption, he makes it a part of his education. Perhaps he may have heard that the Eocene horse had four toes in front and that the Archæopteryx had a lengthened vertebrated tail—conclusive evidence to him of the ancestry of the modern horse and birds!

The great number of the unsolvable problems in the theory, however, have never been presented to him. Still, he takes great comfort in believing the theory, for he feels that it places him in good company.

I have even heard a professor say that when his son shall go to a leading institution to obtain an advanced course, he would feel ashamed to say that he was not an evolutionist. And yet the evolution taught in such an institution is, in all probability, atheistic or agnostic, if reports can be trusted. I have heard this same professor say that he did not study science more than a year in college, that he is not a zoologist, but that he accepts the theory of evolution because it represents the consensus of scientific opinion.

Many of the vital facts involved in this theory are not difficult to understand. I take it that no man is under obligation to accept this theory without inquiring into the facts upon which it is based. It is true that the universal theory in all of its details is of vast proportions. Few have the time and knowledge fully to understand it. The differences of opinion, as shown by answers to my questionnaire, show some of the diversities of opinion on the subject. It seems to me that, in this case, a suspended judgment would be a virtue. If I were called upon to determine

the architecture and strength of materials for a great suspension bridge, I might well pause without considering that I had disgraced my judgment. That would certainly be quite as safe as to join in a fad, even if I acknowledged my ignorance.

Many of those who have answered my questionnaire, it is evident, have simply echoed current opinion. Some presidents of universities have said, "We can not answer your questions because we have not the scientific knowledge," but they have expressed the opinion that evolution is taught in all higher institutions of learning. It is evident, however, that they attach different meanings to the word "evolution." Some seem to think that it comprehends all the changes that have taken place in the history of the world. All people agree as to continual changes, but change alone is not evolution. The majority, probably, apply the word to organic evolution, and admit miracles as a part of the process. They consider it to be partly a natural and partly a supernatural process. Many Christians accept this statement as to method of creation.

But evolution in its widest sense is entirely naturalistic. Its only data are matter and force, or, if it is theistic, it confines God to natural processes, and thus eliminates the

supernatural. According to this theory, all religion is naturalism, and the Bible is only a human book, to be judged simply as literature.

A recent writer aptly says: "Naturalism has run riot for twenty years, to go no further back, and we are still smeared with it." An acute critic has said that, if it was the task of the last century to put man into nature, it is the task of this century to get him out again. He is still neck deep in it, having followed nature to "the last ditch and ditch water."

The existence of man's spiritual nature and the need of spiritual culture in our educational system have been largely neglected in our chase after material results. The minds of many are still wallowing in gross materialism in trying to prove that man is only the highest animal. On this low plane man can never command much respect. As a son of God with an immortal soul, his entire relation to time and a spiritual world is changed.

If man is made to feel that he is born to perish like the brute, his soul is warped and stunted. It is only in the light of a limitless expanding future that the soul is at its best.

Our modern education is too material—too much grasping after material results. "Will

it enable me to add to my wealth?'' is too often the question. ''Will it help me to live a model life?'' ought to be a fundamental question in education. College curricula are not shaped in the interest of character, but mostly with regard to getting on in the world. It sometimes happens that the alumnus, who ought to stand for what is best for society, is only an educated knave. His knowledge, unguided by character, is only ''German kultur.''

I take it for granted that no man who does not stand for a high order of character ought to be a member of a college Faculty. If a man is an atheist or an agnostic, he ought not to be allowed to impose his views upon Christian young people. *Liberty to teach does not mean liberty to destroy Christian faith.* I know that it is said that the Christian young man when he enters college is confronted with the problem of adjusting his faith to the new problems of science, and that it becomes necessary for him to adjust his theology to science. This is said especially with regard to evolution, which is regarded as ''science.''

Evolution, as I have claimed in another chapter, is but a philosophy of creation founded from beginning to end upon an improbable series of assumptions. Christianity

is under no obligation to do obeisance to this materialistic philosophy.

But the student must take notice, we are told, of the contradiction between Genesis and geology as to creation. Taking the days in Genesis to be indefinite periods, as do Sir William Dawson and Prof. Joseph Le Conte, the matter of conflict disappears. Both of these high authorities accept the account in Genesis.

The presidents of universities and colleges generally have it in their power to determine who the members of their Faculties shall be. They preside over the future intellectual and moral destiny of the young people in their charge. It is their duty to know the characters of professors and the quality of what they teach. They are to see that "academic freedom" is not made an excuse for teaching all kinds of destructive doctrines. The atheist, the agnostic and the materialist have no rightful claim to a place on a college Faculty. *The public does not support State universities for the propagation of atheism.* A godless philosophy aims at the very foundations of Christian civilization. Those in authority are ignorantly bearing with godless teaching in many of the highest institutions. Christian young men and women are being ignorantly subjected to the assaults of a godless philoso-

phy under the name of "evolution." They have neither the ability nor the information to resist the attacks.

"Academic freedom" is but a thin cloak under which all villainies seek to hide. A godless philosophy is more destructive of human welfare than Krupp cannon and "U" boats. A godless spiritual dwarf, whose faith and hope and high aspirations have been paralyzed by a destructive philosophy under the name of the "scientific method," is the most worthless member of society. Without an abiding, inspiring faith his life is zero.

A Christian had two sons. He sent the older one, a very bright boy, to a university. He graduated with honor. He brought home much Latin and Greek and things he had learned, but he left his Christian faith behind. The teaching he got did the work. The second son was kept at home. He was a great worker in the church and a man of undimmed faith. *Must a university, dependent on public funds, be so organized as to destroy Christian faith?*

A father wrote to me in great agony, saying that he had sent his son to Illinois State University; that when he sent him he was an excellent Christian worker in the church, but that a teacher of philosophy in that university had destroyed his son's faith. Was that young man's education an improvement?

I was recently told by a young man who had attended Missouri State University the last two years that they have a three years' course in biology, and that 60 per cent. of the students who take that course come out atheists. Are we to conclude from this that 60 per cent. of the parents of these young people want that kind of teaching? Are atheists in professors' chairs to carry on their destructive work, unopposed, with a high and mighty hand? Is the public helpless in their hands? Is there no remedy by which Christian young people can be saved from the clutches of these ghouls?

About a year ago I visited a classroom in Ohio State University at Columbus to hear a professor of zoology lecture to a mixed class of about seventy-five young men and women on evolution. During the lecture a young woman asked the professor substantially this question: "Is the doctrine of evolution consistent with the Christian religion?" I was told by one who sat near the professor that he answered in substance: "It makes no difference to me whether there is a God or not." His answer was understood to be a declaration of his atheism. I was told by a young woman there, who was ready to enter the Senior year, that three-fourths of the professors in that university were atheists, and that the other fourth were agnostics and Christians. It was also told by

a student that the library on evolution contains two or three hundred volumes in favor of the theory and only two or three against it. This shows that the art of lying has there been reduced to a science. It can easily be seen that there are more ways of lying than one. The process can easily be shown in the selection of a library. The men who teach the subject and select the books understand the advantage of *one-sidedness.*

Leland Stanford University has an unenviable reputation as to the effect of its teaching on Christian students. I have given a quotation on this in connection with that university.

I am constrained to believe that many of our leading universities are in some departments destroying the Christian faith of young men and women. I have spoken on this subject in various places, and have repeatedly been told that, as to destructive teaching in the universities, my statements are correct.

I am not unmindful of the many excellent things that are taught in our great universities. It is true that, in many respects, their teaching excels, but it is also true that, owing to the harmful teaching in some departments, many Christian men will not send their sons and daughters to them.

The following is from the *Christian-Evangelist,* Dec. 23, 1920:

"The Federal Council of the Churches of Christ in America in the Fourth Quadrennial Meeting.

"*A Survey of the Religious, Moral and Economic Needs of the World.*

"In this survey we have the following:

"Polite, Suave and Apologetic Skepticism.

"There is everywhere in this country, especially in our high institutions of learning, a skepticism—polite, suave and apologetic—far more deadly than any ever known here before, in the opinion of Rev. Charles L. Thompson, president of the Home Missions Council, who discussed a nation-wide program for Christianizing American life, at the evening session in Ford's Hall.

" 'This skepticism,' continued Rev. Mr. Thompson, 'is all the more insidious for the reason that it can be recognized only as the approach of an iceberg is recognized by mariners, through the icy chill which permeates the atmosphere at its approach. . . . We must vitalize our Christianity and our Christian forces. The time has come when America will no longer stand aside and see the world drift toward disorder and from revelation.' "

III.

DESIGN IN NATURE.

I DESIRE to point out certain facts that indicate an intelligent Creator in connection with the world's history. The existence of an intelligent, directing Creator seems to me to be clearly manifested in the preparation of the world for living things. There was probably a long period, before life appeared, during which the earth was losing energy in the form of heat. It was a dying world, so far as energy is concerned. Some may think of the changes that were taking place as evolution, but it was not evolution in the sense in which the word is applied to the organic world. The two processes are fundamentally different.

I assume that the existence and well-being of man physically and mentally was a design worthy of an intelligent Creator.

There are fewer than one hundred known simple substances in the composition of the earth. Four of these elements—namely, carbon, oxygen, hydrogen and nitrogen—are

necessary for all plants and animals. Sixteen elements compose the human body. If any one of the four elements had been left out, no living thing, so far as we know, could exist. The existence of the human being requires the presence of most, if not all, of the sixteen elements. Carbon exists in the earth in small per cent. It is deposited in carbonates, in coal, carbonaceous shale, petroleum and in gas. The atmosphere contains one volume of carbon dioxide in thirty-three hundred.

Plants are dependent for their supply of carbon on the small fraction of one per cent. of carbon dioxide in the air. If carbon had been absent from the earth, or carbon dioxide from the air, plants, consequently animals, could not exist. All of the carbon dioxide might have been bound up in carbonates or other forms not available for plant growth. The carbon dioxide of the air is being constantly renewed by the combustion of fuel, by the decomposition of carbonates by means of organic acids, and by the decay of organic matter and exhalations from animals, so that the supply for plant growth promises to be of long duration.

Oxygen constitutes more than 40 per cent. of the earth's crust, nine-tenths of the weight of water and about 23 per cent. of the weight

of the atmosphere. It combines with most of the other elements directly. If there had been much less oxygen than there is, it might all have combined to help form the solid crust of the earth, leaving none for water and air, in which case life, as we have it, could not exist. The same result would have followed if the balance after forming solids had all been used up in forming water, leaving none free for the air, in which case no animal life could exist. It was necessary that oxygen should be sufficiently abundant to unite with most of the simple substances that form the earth's crust, to help form water to the extent of two miles in depth if spread over the whole earth and still have a residue free for the air. It must be present and in certain quantity to serve the purpose.

Nitrogen is a third element that is a necessary part of every living thing. Its compounds in the crust of the earth are very limited in quantity. It comprises about 77 per cent. of the weight of the air. It combines directly with but few elements. Its compounds in the earth, in the form of nitrates, ammonium compounds and certain organic substances, are very soluble in water, and are being washed away continually by running water. The atmosphere is the inexhaustible source of nitrogen for plants.

Nitrogen dilutes the oxygen of the air so that it is less rapid in its oxidizing effects, and thus reduces danger from conflagrations. It is evident that, if the amount of nitrogen in the air were greatly increased so as to dilute the oxygen much more than it is, the efficiency of oxygen in creating high temperatures for the reduction of metals and other purposes would be greatly decreased.

Hydrogen, the lightest known substance, is a fourth element that must exist for every living thing. It exists mostly combined with oxygen in the form of water. If it existed in quantity large enough to combine with all the oxygen to form water, no life could exist.

What are the probabilities, according to any chance, that these four elements, each necessary for living things, would occur and in the proper quantities to render them available for life? We are here in a region where evolution is absolutely unavailable.

When we ask this question with regard to the sixteen elements that compose the human body, how infinitely impossible it seems that these should all be present by chance. We know that most of these substances are necessary. Calcium and phosphorus and oxygen are necessary for the phosphate of the bones; sodium and chlorine in the form of common salt are necessary; sulphur, potassium, mag-

nesium, iron and probably other elements are also necessary. *The building materials for the human body did not happen here by chance.* A wise Architect planned in advance the building of man's body.

All of the above elements, except some salt and water, come ultimately through plants. The design shown in preparing food for plants is supplemented and strengthened by the use of plant substances as food for men and animals.

The plant is a conservative organism. It stores up energy in the form of organic compounds, which animals use as food. The plant is a deoxidizing agent. The animal is an oxidizing agent. It burns up materials which plants have prepared. The plant and the animal largely supplement each other in their work.

A designing Creator was looking forward in many ways, not only to the coming of man, but to the coming of a progressive man who could fully take possession of and have dominion over the whole earth, and utilize the many things placed here for his benefit.

The many kinds of food widely distributed over the earth, adapted to man's use; the various things that can be converted into clothing for his protection and comfort; the great storehouses of coal, carbonaceous shale, petro-

leum, gas and wood for fuel; the building materials available for shelter; the numerous metals and metallic ores that have been brought more and more into use as knowledge has increased—these, and many other things, speak of a far-reaching intelligence that was contriving for the physical and spiritual well-being of man.

"But," says one, "there are so many things in which I can see no design." The absence of our ability to see design is, I take it, only an indication of our ignorance. The savage fails to discover and to use most of the metals and other elements and their compounds. His ignorance blinds him and prevents him from understanding the uses of things. Blessings come as a reward for rightly exercising the powers that have been given us. Nature reveals her secrets to the intelligent, persistent inquirer.

There may be many things in which we can see no design, and yet if there are some things in which we can see design, this fact unmistakably proclaims a designer. The Patent Office of the United States contains hundreds of thousands of models. It is not necessary for us to understand each model before we can logically conclude that some have been designed. When we look at a great printing-press we are constrained to ask:

Which is greater, the printing-press or the man who designed it? When we see the vast provision in this world for the well-being of men physically and spiritually, we ask: Which is greater, the things designed or He who designed them?

I have not dwelt upon the adaptations of organisms to their environment, for the reason that it is claimed that these adaptations have been produced by evolution, but I have considered those things which, for the most part, are beyond the process of evolution.

IV.

SPONTANEOUS GENERATION.

THE theory of universal evolution necessarily includes spontaneous generation. This fact has been recognized by many leading writers on evolution. Prof. H. W. Conn, of the Wesleyan University, in the "Method of Evolution" says: "For a long time, the term 'evolution' was to most persons synonymous with the idea of organic evolution, the broader aspects of the problem being overlooked. The term 'evolution' is certainly much broader than the simple problem of the origin of plants and animals. At the same time, it is so evident that organic evolution forms the keystone of the evolutionary arch, without which it would fall to pieces, that the whole debate for years centered around the problem of organic evolution."

Le Conte says: "Evolution is universal. The process pervades the whole universe, and the doctrine concerns alike every department of science—yea, every department of human thought. Therefore, its truth or falseness,

its acceptance or rejection, is no trifling matter, affecting only one small corner of the thought realm. . . . It determines the whole attitude of the mind towards God."

As a universal process it necessarily includes the origin of living things.

Professor Conn further says: "An important part of the evolution problem is, of course, the origin of life, which appears to mean the origin of the first protoplasm. Upon this subject it must be confessed we are in as deep ignorance as ever. Indeed, if anything, the disclosures of the modern microscope have placed the solution of this problem even further from our grasp. So long as we could regard protoplasm as a chemical compound, definite though complex, so long was it possible to believe that its origin in the past geological ages was a simple matter of chemical affinity. It was easy to assume that under the conditions of earlier ages, when chemical elements were necessarily placed in different relations from those of to-day, chemical operations could arise which would result in the formation of the complex body—protoplasm. This has been the supposition that has laid the foundation of the various suggestions as to the origin of life. But, having now learned that this life substance is not a chemical compound, but a mechanism, and that its prop-

erties are dependent upon its mechanism, such a conception of the origin of life is no longer tenable. In its place must be substituted some forces which build a mechanism. But even our most extreme evolutionists have not yet suggested any method of bridging the chasm, and, at the present time, we must recognize that the problem of the origin of life is in greater obscurity than ever. The origin of chemical compounds we may explain, but their combinations into the organic machine which we call protoplasm is, at present, unimaginable."

"So far as we know, *unorganized protoplasm does not exist.* The properties of life appear to be manifested by nothing simpler than the organic cell. Everything that grows and reproduces is in some way differentiated into cells, and the cell seems to be thus the simplest condition of matter which can manifest the properties of life. But the cell is anything but simple. It consists of many parts acting in adjustment to each other. The more it is studied the more complex it appears. . . . It acts rather as a machine. It must be regarded as a mechanism, and can not be called a chemical compound. Its properties are the properties of the cell as a mechanism and not of the cell as a chemical compound. . . . If we trace variation to 'organic composition,' it

must be to the mechanical rather than the chemical composition of this substance. . . . *With all our research, the essence and origin of life has thus far eluded our grasp.* The scientist should go no further than the evidence leads him, and should not indulge too much in philosophical speculation."

This advice the evolutionists are slow to take.

Darwin said that "the inquiry as to how life first originated is hopeless."

Tyndall concluded, after nearly a thousand experiments with organic infusion, that, so far as his experiments showed, living things come only from the living.

Romanes said: "The theory of descent starts from life as a *datum* already granted. . . . Science is not in a position to furnish so much as any suggestion upon the subject; and therefore our wisdom as men of science is to frankly acknowledge that such is the case." ("Darwin and after Darwin," p. 15.)

Professor Dana, in his "Manual of Geology," says: "Science has no explanation of the origin of life. The living organism, instead of being a product of physical forces, controls these forces for its higher forms, functions and purposes. Its introduction was the grandest event in the world's early history."

Professor Tyndall said: "I share Virchow's opinion that the theory of evolution, in its complete form, involves the assumption that at some period or other of the earth's history there occurred what would now be called spontaneous generation; but I agree with him that the proofs of it are wanting. I hold also with Virchow that the failures have been so lamentable that the doctrine is utterly discredited."

Prof. Lionel S. Beale said: "There is a gulf between life and non-life that is unfathomable, and I can not believe it will ever be bridged."

In 1893 Lord Kelvin said, in an address: "Forty years ago I asked Liebig, walking somewhere in the country, if he believed that the grass and flowers which we saw around us grew by mere chance force. He answered: 'No; no more than I believe that a book of botany describing them could grow by mere chemical force. . . . It is not in dead matter that men live, move and have their being, but in creative and directive power which science compels us to accept as an article of faith. Is there anything so absurd as to believe that a number of atoms, by falling together of their own accord, could make a crystal, a microbe, or a living animal?' "

"The Origin and Evolution of Life," by H. F. Osborn, contains one of the most recent

efforts to account for spontaneous generation. The author, after devoting nearly one-half of a large volume to this subject, ends with this conclusion: "The more modern scientific opinion is that life arose from a recombination of forces pre-existing in the cosmos." His supposed facts in favor of spontaneous generation end in stating an *opinion*. But why call it a "*scientific opinion*"? That "life comes only from life" is an accepted fact of science. In the face of this admitted fact why should a "*scientific opinion*" that living things come from dead matter and force have any standing? It is because spontaneous generation *must* be accepted by the evolutionist. His only factors, as he claims, before life appeared, were matter and force. These furnish, theoretically, a scientific basis and exclude the supernatural. To admit God into the process, to admit a miracle or any other supernatural event, is beyond the province of science. The evolutionist, in his vain endeavor to exclude God, must hold that life comes from non-life. There is no escape from this conclusion which contradicts the known facts.

Jordan and Kellogg, in "Evolution and Animal Life," page 41, say: "Finally, we may refer briefly to the 'grand problem' of the origin of life itself. Any treatment of this question is bound to be wholly theoretical.

We do not know a single thing about it. We have some negative evidence. That is, we have no recorded instance—and men have searched diligently for examples of spontaneous generation. No protoplasm has been seen, or otherwise proved, to come into existence except through the agency of already existing protoplasm. All life comes from life. The biologist can not admit spontaneous generation in the face of the scientific evidence he has. On the other hand, he has difficulty in understanding how life could have originated in any other way than through some transformation from inorganic matter."

The authors have just stated that "all life comes from life." This being true, it is certainly not easy for the "biologist" to understand how life can come from death by spontaneous generation—by the action of force upon dead mineral matter. He *must* claim it. He *must* deny the known fact in favor of his theory. Is this science?

Prof. E. D. Cope says, in the "Introduction to Primary Factors of Organic Evolution": "The doctrine of evolution may be defined as the teaching which holds that creation has been and is accomplished by the agency of the energies which are intrinsic in the evolving matter, and without interference of agencies that are external to it. It holds

this to be true of the combinations and forms of inorganic nature as well." This definition renders spontaneous generation necessary. Cope further says: "Failure of the attempts to demonstrate spontaneous generation will prove, if continued, fatal to this theory."

He also recognizes two classes of force. He says: "I have termed these classes the anagenetic, which are exclusively vital, and the catagenetic, which are physical and chemical. The anagenetic class tends to upward progress in the organic sense; that is, towards the increasing control of its environment by the organism, and towards the progressive development of consciousness and mind. The catagenetic energies tend to the creation of a stable equilibrium of matter, in which molar motion is not produced from within, and sensation is impossible. In popular language the one class of energies tends to life; the other to death."

Both of these classes of energy are manifested in the growth of a tree, in which the life forces of the tree during growth overcome the inorganic forces in the carbon dioxide and other plant foods, and thus obtain their nourishment. When the plant dies the death forces prevail, and its substance is finally reduced to the stable inorganic forms of matter.

Again, Cope says: "If the tendency of the catagenetic energies is away from vital phe-

nomena, it is impossible that they, or any of them, should be the cause of the origin of living matter. This logical inference is confirmed by the failure of all attempts to demonstrate spontaneous generation of living organisms from inorganic matter."

Herbert Spencer spent much time in trying to establish evolution on "matter, motion and force" as the only data. I need not add that he proved nothing in favor of spontaneous generation. As an agnostic, he referred all to the "unknown and unknowable" power.

It is evident from the preceding that spontaneous generation is a necessary part of evolution; that the efforts to prove it true have resulted in total failure, and that the fact that life comes only from life is the established fact of science. *The very basis of organic evolution is thus eliminated.* The theory can have no standing even as a philosophy, since it plainly contradicts a well-known fact. It begins evolution without a beginning—without a living thing.

V.

FAILURES OF EVOLUTION.

I SUBMIT a summary of some of the more evident places where, in the progress of events, naturalism fails to account for what has taken place.

It is well to remember that changes have taken place through the long ages of the earth's history, but to call all of these changes evolution in the Darwinian sense is entirely misleading. I have elsewhere considered this.

I think it is evident that intelligence and design, calling for more than natural forces can accomplish, are manifested in the history of the earth. I believe that the supernatural, including what we call miracles, has often occurred, and yet without *violating* the so-called "laws of nature." These "laws" are only the methods according to which the forces of nature act. As I have stated elsewhere, the natural forces, under the control of intelligence and free will, can be made to bring about many different results that would otherwise not occur. I believe that the history of the

world has been under the control of God, and that he has exercised his power in both a natural and a supernatural way.

The expression "laws of nature" is liable to be misleading when applied to the action of free mind which can choose and determine results produced by forces. The "laws of nature" are not forces and they govern nothing.

There can be no conflict between the natural and the supernatural, for *God is the author of both.* Neither includes nor excludes the other.

As to design in the mind of an intelligent God, I have claimed that the physical and spiritual well-being of man, made in the image of God, is entirely worthy of Deity.

Evolution, naturalism, fails, among others, in the following respects:

1. It can not account for the simple substances of the right kinds and quantities that are necessary for the bodies of all living things. There is no possibility that evolution could have prepared these elements *by chance* nor that the process could have provided the sixteen elements that are components of the body of man. I have referred to this in a previous chapter.

2. The origin of life is beyond evolution to account for. All attempts to discover life's origin have been hopeless failures. "All life comes from life" is the *known* fact. That a

living, self-nourishing, self-propagating being has been produced by dead, inorganic matter and the forces of nature is, and *must* be, *assumed* as the beginning of the process of organic evolution. This assumption is the necessary foundation of the whole theory. This violent assumption is a strange beginning for the so-called "*scientific* doctrine" of evolution. The word "science" implies knowledge and not assumption.

3. Evolution can give no account of the separation of the organic world into plants and animals. Plants alone can live on inorganic food, while animals live mostly on organic food. Plants are deoxydizing agents; animals, oxydizing. Without the plant the animal can not exist. The functions of the two are largely opposed to each other. Evolution knows nothing as to how the two groups of organisms ever became so widely separated. The plant is engaged largely in storing up energy and the animal in dissipating energy.

4. Evolution fails to explain in any way the origin of sex. The first organisms, according to this theory, were individual plant cells, which multiplied by the division of the nucleus and the constriction of the cell into two parts, thus becoming two new organisms. This is the simplest known method of reproduction. In the sexual method of reproduction two unlike

cells, generally from male and female individuals, unite in a wonderful and complex way, thus producing one new individual. The changes that take place in this process have been described by Romanes as among the most wonderful that the microscope has ever revealed.

5. If you try to imagine how the sub-kingdoms of animals branched from a common ancestral stock, you only laugh at your folly. Try to think of fish, brachiopod, trilobite, spider, coral-forming polyp, onthoceras and insect as branching from a common stock! These, and many other forms, appeared early in the geological history of the earth. We are required by the theory to accept without evidence the statement that they branched from a common stock.

6. Evolution knows nothing whatever as to how any of the organs of the body have originated. The feeble effort which she makes to explain the origin of legs from no legs is indeed laughable, if not pitiable. The effort rather excites one's contempt for the man who makes the ignoble effort. It has been truthfully said that "you can not get blood out of a turnip."

No wonder that Darwin almost had a cold chill when he considered the evolution of the eyes of vertebrates. I almost lose my respect for the human mind when I see men trying

to trace the evolution of the human eye from "eyespecks" that are found in starfishes and other low forms. The faith required to believe it true is far greater than the faith of Abraham. Evolution demands of its devotee gullibility at every step. Bergson, in his "Creative Evolution," pages 64 and 65, calls attention to some of the insuperable difficulties of accounting for the evolution of eyes. We know nothing as to the origin of any of the numerous eyes, legs, wings and other organs that exist in the animal kingdom. Endless "ifs" and "presumptions" and "assumptions" are necessary at every step of evolution. But it is said that it all occurred according to the "*scientific process!*" It is claimed that the *fact* of organic evolution needs no further proof. (?) Dr. Romanes has shown that the electric organs of certain fishes can not have been preserved because useful nor for any other known reason. He presents this as a vital fact against Darwinism.

7. Evolution only guesses at the origin of mammals. Remains of the oldest known mammals of the size of rats and mice have been found in the Triassic of the Mesozoic age. During all of this age, which was quite long geologically, no larger mammals than rats and mice are known to have existed. How these warm-blooded mammals with non-nucleated

red blood corpuscles, and covered with hair, and possessing milk glands developed for nursing their young, could have been evolved from a cold-blooded reptile with nucleated red blood corpuscles and with no milk glands and covered with scales, is a problem for the evolutionist which he easily solves by saying that it undoubtedly took place. We imagine the small, lizard-like vertebrates reclining in the Mesozoic sunshine, clasping their young to their bosoms in order to induce the milk of kindness to flow into the mouths of their hungry offspring. The nursing instinct in both mother and offspring and the milk glands must all appear at the same time, otherwise the process fails. It all had to be developed suddenly in a single generation in order to succeed, and then to be handed down to their posterity. It was easy and simple to evolve the hair of these mammals from the scales of the lizards because the two are *homologous*. These "scientific" facts necessary to "scientific evolution" are easily verified by the use of the scientific *imagination*. The beauty of the whole process is that it is *scientific*, and does not need God. It needs only matter and blind force.

Immediately after the Cretaceous of the Mesozoic age, in which only a few remains of mammals have been found, and which belonged to animals of the size of rats and mice, there

appeared in the Tertiary of the Cenozoic age many large mammals of many kinds belonging to various orders. These were found in great abundance and were widely scattered. Among the mammals was the zeuglodon whale, seventy feet long, which existed in the Gulf of Mexico. The only known geological source from which these numerous large mammals could have been derived was the few extremely small mammals of the Cretaceous. There is no evidence that they thus originated. That this whale was evolved from some land mammal which was forced into the sea to seek its food is an assumption that evolution must accept without proof. But the stress, or the distress, of absolute necessity declares that the whale thus originated. Thus the process of evolution glides merrily along and every chasm is easily bridged with a new assumption.

8. The absence of connecting links can not be accounted for by evolution. Mr. Darwin says: "I do not pretend that I should ever have suspected how poor was the record in the best preserved geological sections, had not the absence of innumerable transitional links between the species which lived at the commencement and close of each formation pressed so hardly on my theory." If the "transitional links" ever existed, their absence can not be accounted for. They were composed of the

same kinds of materials as those preserved. Romanes speaks of the geological record as a "chapter of accidents," because of the fewness of necessary connecting links.

Again, Darwin says: "The number, both of specimens and of species, preserved in our museums, is absolutely as nothing compared with the number of generations which must have passed away, even during a single formation."

Le Conte says: "We think the fragmentariness of the geological record has been overstated." He says that there are hundreds of feet in succession of Tertiary fresh-water deposits crowded with fossils of many species and the connecting links are absent. He speaks of the absence of "connecting links" as "the greatest of all objections" to evolution. He also says: "The change is apparently by *substitution* of one species *for* another, and not by transmutation of one species *into* another. So also in *successive* geological faunas, the change seems rather by substitution than by transmutation."

According to Darwin and Romanes and others, *the missing links far outnumber the known species,* and these missing forms are simply *assumed* to have existed because the theory of evolution demands it. There is no escape from making this assumption.

Huxley says: "There is not a single class of vertebrated animals which, when it first appears, is represented by analogues of the lowest known members of the same class. Therefore, if there is any truth in the doctrine of evolution, every class must be vastly older than the first record of its appearance upon the surface of the globe."

In other words, there is no evidence from fossils that any one of the highly developed, oldest-known forms of vertebrates was evolved from lower forms.

As stated elsewhere, if the so-called "tree of life" be considered beginning with the first organic cell as a seed and, from this, growing up and branching so as to include all animals and plants that would be necessary according to the theory of evolution, then the whole lower half would have to be erased for lack of fossils that show that it ever existed; and nearly all of the upper half would have to be erased, thus leaving a few separated spots which show no organic connection between each other. A tree is an apt figure if evolution took place, but, as a matter of fact, it exists only in the *imagination* of the evolutionist.

9. Evolution of species has not been proved. Darwin's son, in writing his father's biography, says: "We can not prove that a single

species has changed." And yet evolutionists claim that all species have changed.

Huxley wrote: "After much consideration, and with assuredly no bias against Mr. Darwin's views, it is our clear conviction that, as the evidence now stands, it is not absolutely proven that a group of animals, having all the characters exhibited by species in nature, has ever been originated by selection, whether artificial or natural. Groups having the morphological character of species, distinct and permanent races in fact, have been so produced over and over again; but there is no positive evidence, at present, that any group of animals has, by variation and selective breeding, given rise to another group which was even in the least degree infertile with the first." In other words, cross-sterility between the many varieties of pigeons, which Mr. Darwin studied, was not produced. All of these varieties, however different from each other in appearance, were cross-fertile with each other, and their offspring were fertile. It is admitted that if all these varieties had been turned together, they would have disappeared as varieties and a common form would have resulted.

Nature has no method to produce cross-sterility between varieties. But cross-sterility between groups of animals, known as species, is the rule. According to the theory of evolu-

tion, these species, which are now cross-sterile, were evolved from varieties which were cross-fertile. There was no other source from which to get them. The *fact* is that cross-sterility between varieties has not been produced nor is it known to have taken place in nature. Occasionally, closely related species cross, but their product is not fertile, as in the case of the horse and the ass.

10. Evolution has no means in a state of nature to prevent variations in individuals from being lost by merging in the common stock. If a variation occurs, it is soon lost by mingling, and the species is thus kept at a common level. Variations take place in all directions, and, by mingling these, the species is kept constant.

11. Mr. Darwin says: "In what manner the mental powers were first developed in the lowest organisms we have no conception." He admits that the inquiry is hopeless.

Herbert Spencer says: "That a unit of feeling has nothing in common with a unit of motion, becomes more than ever manifest when we bring the two into juxtaposition." Evolution based on "matter, motion and force" knows nothing as to the origin of feeling. Sensation, sometimes very dull, is found in all animals. Evolutionists know not how it came. They simply assume that it was evolved from matter and force. This *assumption* is to be accepted as

a *fact* in their assumed *scientific* process. Logic suffers all violence at their hands.

12. Evolution can offer nothing as to the origin of the many complex instincts. True, Mr. Darwin has attempted to explain the origin of the highly developed instincts in the neuters of certain colonies of ants and in the neuters of the honey-bee which leave no offspring. How the many instincts in the neuter honey-bees, which leave no offspring, could have been evolved is, I think, beyond all reasonable explanation. Mr. Darwin says, in concluding his chapter on instincts: "I do not pretend that the facts given in this chapter strengthen in any great degree my theory; but none of the cases of difficulty, to the best of my judgment, annihilates it."

In referring to the difficulty of the instincts of two kinds of sterile ants in the same colony, he says: "This is by far the most serious special difficulty which my theory has encountered."

I have devoted a chapter to "Instincts" in my book "Organic Evolution Considered."

13. Matter and force, the only data of the philosophy of evolution, totally fail to account for the mind of man. This philosophy is a question of origins, from beginning to end. When Mr. Darwin says, "In what manner the mental powers were first developed in the lowest organisms, is as hopeless an inquiry as how

life first originated," he simply evades two of the most important questions that are necessary parts of his theory when projected backward to a beginning. Mr. Darwin at no place in his process of creation acknowledges an intelligent God, but relies strictly upon natural processes which are based upon matter and force.

Prof. H. W. Conn says of natural selection: "But, after all, the greatest strength of the law of natural selection has been in the fact that it has furnished a natural law as a substitute for supernatural intelligence." He understands that Darwin excludes intelligence from the whole process, and this leaves only matter and fluid force as factors. He acknowledges that he has no beginning for even the simplest mental process in the lowest animals and much less, if possible, for the faculties of the human mind. His process is atheistic.

In saying this I do not mean that organic evolution might not in part be theistic, but Mr. Darwin does not make it so.

He claims that man's powers of mind differ in degree, but not in kind, from those of the lower animals. He holds that man, body and mind, has been evolved from an anthropomorphous ape. I can point out only a few of the cases where man's mental powers are not possessed by animals. Conscience belongs to man alone. No animal has it. We do not

attribute moral quality to a brute. No animal is known to suffer in conscience for any misdeed. Freedom of the will to act from motives that conscience approves, belongs to man alone. Without this freedom, there could be no conscience; that imperious word "ought" could make no demands.

Self-consciousness is possessed by man alone. He can think about his own mental conditions, compare his thoughts as if they were external objects, bring together the past, the present and, in imagination, the future, and reason about them as realities. He can realize that he is the same person, though changed, that he was in his youth. He can examine his own mental being and pass judgment upon it as if it were another person. No animal has this power.

In no important sense do animals have the power to reason, compared with man's power to carry on an extensive process of reasoning in many fields of thought. The sounds made by animals, by means of which they communicate, are not to be dignified as language by comparing them with the speech of man. Human languages, with their many thousand words, embody the thoughts of the human mind. Language embodies thought. Animals have no thoughts to embody. Their so-called language is but the instinctive expression of

their feelings. No animal can entertain an abstract idea such as is embodied in any one of a multitude of human words. This is beyond their power. Think of the mind of a dog, horse or ape in connection with chemistry, physics, Greek, Latin, medicine, surgery, best method of farming, or any great subject, and you only smile at the thought. Universal love, the "noblest power of man," is acknowledged to be beyond their ability to entertain. They do not contemplate sending relief to their kindred in China or Armenia.

Man has flooded the world with tools and inventions of a million kinds for all conceivable purposes. He has modified and directed the forces of nature to utilize his inventions. It is said that an ape will sometimes use stones to crack nuts or roll them downhill against his enemies. That is all.

The idea of one spiritual God—omnipotent, omniscient, omnipresent—a God of universal love and holiness who condemns sin in all its forms, but who can forgive the penitent sinner, is the most comprehensive that can enter the human mind. The idea of the one spiritual God, as set forth in the first chapters of Genesis, could not have been born of the human mind, but it came as a revelation, as a lightning flash from heaven to man. This idea came not by reason, by philosophy nor by science.

"In the beginning God created the heaven and the earth" is a conclusion, the greatest that was ever drawn, and without human premises. Modern materialistic philosophy, in the form of universal evolution, is no substitute for this first sentence of the Bible.

All of the nations except Israel were polytheists. The Greeks, with all their culture in art, literature and philosophy, did not build their civilization upon monotheism, but upon polytheism. Their civilization perished for lack of a moral basis.

The Israelites, a small nation surrounded by polytheists on every hand, with the idea of the one God firmly rooted in their mind by their inspired teachers, kept on their way, as the Gulf Stream in the ocean, enduring persecutions, wars and captivities in the name of Jehovah, and so they have endured unto this day. The idea of the one God runs as a golden cord through the sixty-six books of the Bible and binds them together as one consistent whole, although these books were written through a period of hundreds of years and in widely separated regions. The idea of the existence of the one spiritual God originated in the human mind, not through matter and the blind forces of nature, but necessarily as a direct revelation from God, as set forth in the Bible.

No animal has a religious nature. It would seem superfluous to make this statement. Mr. Darwin says: "The feeling of religious devotion is a highly complex one, consisting of love, complete submission to an exalted and mysterious superior, a strong sense of dependence, fear, reverence, gratitude, hope for the future, and, perhaps, other elements. No being could experience so complex an emotion until advanced in his intellectual and moral faculties to at least a moderately high level." This confirms my statement. Prayer, praise, reverence, love, gratitude, a sense of dependence, hope, belief in a future life, consciousness of sin and forgiveness—all related to the existence of a supreme spiritual God—are beyond the powers of any animal to realize. We at once realize that we can not substitute any animal for man as a religious being. Even the lowest savages accept Christianity. Still, Mr. Darwin does, and *must,* claim that man as a religious being has been evolved from some animal.

14. The mind of man with a free will is not subject to the Darwinian theory of evolution as applied to organisms. Continuous genetic descent must exist among animals if the theory of evolution is true. Unbroken physical continuity must have existed between any living species and the first living thing from which the process of evolution started. Continuity

must exist, otherwise the process ends where continuity is broken.

There can be no continuity between the mental actions of minds that have free will. Thoughts are not inherited. If they were all inherited, the individual could not advance beyond his parents. Neither does the individual obtain all his ideas from his contemporaries, for the world is full of improvements and inventions that represent original thought. Men are under obligations to their fellow-men for much thought, but their individual efforts often lead them far beyond what they receive from their fellows.

The history of the world is a history of human thought in all fields of effort. This, for lack of continuity, can not be regarded as evolution. There has been continual change, sometimes progress, but these alone do not constitute evolution. Genetic continuity can easily be traced in case of real evolution of organic forms, but no such continuity can exist in the case of free mental action. *Evolution and freedom of the will are incompatible.*

15. Evolution founded on matter and force alone, and that theistic evolution which confines God to naturalism, eliminates the Bible as the book of authority in religion by denying everything that is supernatural. Miracles, revelations and objective answers to prayer could

not have taken place by the so-called scientific method.

It was not by the process of evolution that God called Abraham, that He called to Moses out of the burning bush, that He gave to Moses the Ten Commandments on the mount, that He sent down fire on Elijah's altar in answer to prayer, or that He healed Naaman when he had dipped himself seven times in the river Jordan. It was not by the scientific process of evolution that the Holy Spirit overshadowed the Virgin Mary, so that she conceived and bore a son. It was not by evolution that Jesus turned water into wine, gave sight to the blind, cleansed lepers, raised the young man alive from the bier, and called forth Lazarus from the tomb. It was not by evolution that the Holy Spirit descended in the bodily form of a dove at Christ's baptism, and that a voice from heaven announced, "This is my beloved Son." It was not evolution when, on the mount of transfiguration, a voice was heard saying, "This is my beloved Son, hear ye him." The body of Christ was not raised from the dead by the "scientific" process of evolution.

Miracles not being possible as a part of the universal process of evolution, there was nothing miraculous in the birth of Christ, and, consequently, He was only a man, and had not

all authority in heaven and on earth; there being no miracles, Christ's body did not rise from the dead, and He, not having arisen from the dead, did not associate with His disciples forty days, nor did He command His apostles to go into all the world and preach the gospel to every creature. On the day of Pentecost, the apostles did not speak with tongues as the Spirit gave them utterance, nor did Christ speak to Paul when he was converted, nor did any of the apostles perform the miracles that are recorded of them. Christ, according to this theory, was only a man who came by evolution. The confession of Him as the Son of God can not mean that He is Deity. The shedding of His blood, baptism and the Lord's Supper have no authority except that of a man. Forgiveness of sins could not take place according to this theory, for nature's laws are all merciless. Man "fell up" and not down. He does not sin, but only makes mistakes and needs no forgiveness. Man, being under the dominion of law, has no free will and so ought not to have a conscience.

But the fact that he has a conscience is unmistakable evidence that his will is free. Our own self-consciousness confirms this beyond all arguments to the contrary. No logic can defeat the validity of the conclusions of our own consciousness.

The supernatural, that which nature can not perform according to any known laws, is a dominant idea throughout the Bible. The natural and the supernatural are not identical. Science has a natural basis only; the religion of the Bible contains a large supernatural element. *There can be no conflict between true science and true religion, for God is the author of both.* The difficulty arises when naturalism attempts to usurp the whole field, by claiming that it is the only method by which God works.

VI.

ANSWERS TO QUESTIONNAIRE

By Chancellor David Starr Jordan and Dr. Ray Leman Wilbur, of Leland Stanford University.

THE following is a copy of the letter which was sent to Chancellor Jordan, accompanying the questionnaire. The letter is substantially the same as those sent out to the other university presidents whose answers are contained in this volume, and will not be repeated in considering each answer:

Lexington, Ky., June 12, 1920.

Chancellor David Starr Jordan,
Stanford University, Palo Alto, Calif.

Dear Sir:—I have been making inquiry for the purpose of obtaining reliable information as to the status of the subject of Darwinism or any doctrine of evolution in our educational system. A number of the superintendents of public instruction and presidents of normal schools have written to me on the subject. From their answers, I infer that Darwinism, or some other theory of evolution, is commonly accepted and taught in practically all of our high schools, normal schools, colleges and universities. There does not, however, seem to be

agreement as to the meaning of the word "evolution." For the purpose of obtaining a correct definition especially, I write to you and a number of others.

ALFRED FAIRHURST.

Chancellor Jordan strikes out the word "other" before "theory," inserts the word "organic" between "of" and "evolution," and inserts the words "including it" after the word "evolution." He then says: "Darwinism is evolution by natural selection, a constant factor among living beings, but not the sole one." Again he says: "I do not like to use the word 'evolution.' Organic evolution, planetary evolution, topographic evolution, have different meanings. Whenever time elapses, change appears, and this may always be called evolution."

Questionnaire with Jordan's answers:

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"A good epigram."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change; (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—Chancellor Jordan inserts between the words "forces" and "correct" the words "and their reactions to external conditions." He says: "A law is merely the ascertained succession of events."

3. Is not evolution a universal process, beginning in the inorganic world and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place or that will take

place in the future? In other words, is it not the one universal process? the one universal science?

Answer—"It may be, as philosophically considered. But as causes, effects and modes of operation in organic beings are wholly unlike those of world production, mountain-forming and the like, there is much chance of self-deception in uniting the two types."

4. Is evolution to be regarded as a science, or only a theory?

Answer—"Assuredly a matter of scientific knowledge, if the word is not too much diluted."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"The doctrine of evolution is not concerned; the conflict is with common experience. 'Science and religion must each run its course; I am not responsible if the meeting-point be far away.'—*Darwin.*"

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"The teaching of evolution is only common sense and common experience expanded. I take it that the essence of the teaching of Jesus does not lie in the recorded miracles."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are chancellor?

Answer—"To the same extent as the doctrine of gravitation. The living questions relate to the details, on many of which, for lack of complete evidence, there is much difference of opinion. In both cases any other theory consistent with the facts would be given equal

credence. All theory is provisional. But one could no more return to the idea of separate creation of species than to the old idea of planets steered through space in the hands of angels.''

DAVID STARR JORDAN.

(In behalf also of Dr. Ray Leman Wilbur.)

I think that Chancellor Jordan is correct when he says: ''I do not like to use the word 'evolution.' Organic evolution, planetary evolution, topographic evolution, have different meanings. Whenever time elapses, change appears, and this may always be called evolution.''

There is much confusion in the minds of those who accept the theory as to what the word ''evolution'' means. I think that the word is used largely to indicate the changes that have taken place in time without reference to causes or methods. It is easy to understand how this definition can be accepted, and without much thought. Most people seem to think that when they accept the above idea they are ''up to date,'' and especially that they have the ''dynamic,'' which is opposed to the ''static,'' theory of creation. As a matter of fact, every one must accept the idea that, as time has elapsed, changes have continually taken place in both the dead and the living worlds. The fact of *change* is not the whole of evolution. The fundamental question is one of

cause and *method.* Can science and scientific methods explain the present order of things?

In "Evolution and Animal Life," by Jordan and Kellogg (p. 1), it is stated:

"This volume treats of the elements of the science of organic evolution. This science belongs to the consideration of the forces which govern the changes in organisms. It includes the influences which control development in the individual and in the species which is the succession of individuals, together with the laws or observed sequences of events which development exhibits. From another point of view, this is the science of life—adaptation."

In the above quotation, Chancellor Jordan claims that organic evolution is a science. He also claims that the principal thing involved in the study of this science is "the consideration of the forces which govern the changes in organisms." In reading the volume, however, I have failed to see what *forces* are involved in organic evolution.

The word "bionomics," first suggested by Prof. Patrick Geddes, is preferred by the authors to "organic evolution."

To quote further:

"To use the word 'evolution' in regard to this process, is to use a philosophic term in connection with a group of scientific facts. For the word 'evolution' means 'unrolling.' It carries the thought that something which was previously hidden is now brought to light. This naturally leads to the philosophic sugges-

tion that whatever is evolved must be previously involved. This may be true as a matter of words, but not necessarily so as a matter of fact.

"The word 'evolution,' then, belongs to philosophy, rather than to science. In the philosophy of nature the idea that present conditions are brought about through unrolling or unveiling has had a long existence. The word 'evolution' has been frequently applied to the process of growth and maturity of the individual plant, and again to the process of the derivation of species from ancestral organisms, and again to the progressive changes in the forms of inorganic bodies, as planets or mountains. Each one of these meanings is essentially distinct from the others, and each is distinct from the theory of evolution which existed in the dawn of biological science.

"Biological evolution and cosmic evolution are not the same (p. 6). They are not true identities, because not arising from the same causes. It is not clear that science has been really advanced through the conception of the essential unity of organic evolution and cosmic evolution. . . . The laws which govern *living* matter are in a large extent peculiar to the process of living."

From the above it is seen that the word "evolution" is a philosophic term. It is incorrectly used in all of its applications. Few words in the English language have been so widely and joyfully received as the word "evolution." It seems to many to be the universal panacea that explains all events. It can be applied at any time and in any place in the universe, yielding perfect results. Some of the answers which I have received to my

questions indicate almost a hilarious condition of mind from the use of the word "evolution." It is a conjure word to be hung as an amulet from the neck, ready for immediate use in all emergencies. Men use it without having any true conception as to what it means. They seem to think that it has an invariable meaning, when, in fact, it has a variety of meanings in the various fields to which it is applied. The word always implies the question of causes that are unseen, and, for the most part, beyond the power of science to trace, and yet it is generally defined by visible physical results.

In my book entitled "Theistic Evolution," I have called attention to some of the various senses in which the word is used.

It is evident, I think, that when we properly discriminate between the various parts of cosmic, or universal, evolution, we can readily see that there is no genetic connection between them—that the one has not grown out of the other, according to any known or ascertainable laws.

Chancellor Jordan, in the book cited (p. 11), speaking of bionomics, or organic evolution, says:

> "This theory is now the central axis of all biological investigation in all its branches from ethics to histology, from anthropology to bacteriology."

Also (p. 49) he says:

"The days are now by when the truth or falsity of the law of organic descent is a debatable thesis."

He has spoken of organic evolution as a science, but in the above he speaks of it as a theory that reigns supreme in considering the organic world, and in the last quotation he indicates his belief that the evidence in favor of this theory is conclusive.

Again he says:

"Organic evolution, or bionomics, is one of the most comprehensive of all the sciences, including in its subject-matter not only natural history, not only processes like cell division and nutrition, not only the laws of heredity, variation, segregation, natural selection and mutual help, but all matters of human history and the most complicated relations of civics, economics and ethics."

The above definition of "organic evolution" comprehends the entire organic world, both physical and psychological, all human history. It would account for the origin of all species, for man's body and his mind as well. As a logical necessity, the theory must be projected backward from living things into the inorganic world, and, as pure science, which it claims to be, accept Spencer's data—"matter, motion and force." With these alone, it makes but limping,

halting progress along the upward road of a hypothetical evolution.

In traveling this road it soon becomes evident that one is chasing a theory that calls for facts that do not exist—a philosophy whose base hangs over a vacuum.

Chancellor Jordan, in the book cited (p. 70), says:

> "Finally, we ought not to suppose that we have already reached a satisfactory solution of the evolution problem, or are indeed near such a solution."

"We must not conceal from ourselves the fact," says Roux, "that the causal investigation of organisms is one of the most difficult problems which the human intellect has attempted to solve."

Again, he says with regard to organic evolution:

> "After some years of controversy, mostly theoretical, the discussion has been tacitly dropped by biologists generally. It is recognized that the sole critical test is that of experiment, etc." (p. 197).

The discussion that has been dropped is as to method, but the "consensus of the opinion" of biologists is that organic evolution is a *fact.* The proof of this fact must depend on experiment.

Evolution is to have the "critical test" of experiment. In the meantime, however, it is

to be accepted as a *fact.* It would seem that judgment might have been suspended till the "critical test" had been satisfactorily made. The attitude of suspended judgment in doubtful cases would be most wholesome, but, if it prevailed in this case, the acceptance of the theory would be, if ever, in the distant future.

The theory of evolution, as held by many, is an effort by naturalism to preside at the funeral of supernaturalism, which it has murdered.

Chancellor Jordan's Answer to Question Five.

Question—Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"'The doctrine of evolution is not concerned. The conflict is with common experience. 'Science and religion must each run its course; I am not responsible if the meeting-point be far away.'—*Darwin.*"

It is easy to understand that known facts of science are "not concerned" with miracles, for the one involves only the natural, while the other involves the supernatural. It is the business of science to make certain her facts, and religion, which appeals to the supernatural, must harmonize with known facts of science. But when the writer says, "This conflict is with common experience," he seems to "beg

the question." This old way of disposing of miracles by saying that they are opposed to human experience has not been accepted as a satisfactory solution.

Mr. Darwin's statement that "science and religion must each run its course; I am not responsible if the meeting-point be far away," seems to indicate that he was not much concerned as to the bearing of his theory on the Christian religion. Yet the vital and all-important question which evolution raises is: Can the supernatural, in the Christian sense, survive in its presence?

Chancellor Jordan says: "All processes in the universe are alike natural. . . . All are alike supernatural, for they all rest on the huge unseen solidity of the universe, the imperishability of matter, the conservation of energy and the immanence of law" ("Evolution and Animal Life," Jordan and Kellogg—p. 9). The author makes no distinction between the natural and the supernatural. This places the Bible and the Christian religion on a purely naturalistic basis—they are made simply human inventions.

Effect on Teachings of New Testament.

Question 6—What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings

of the New Testament? In what way must this teaching be modified?

Answer—"The teaching of evolution is only common sense and common experience expanded. I take it that the essence of the teaching of Jesus does not lie in the recorded miracles."

The above question is most vital, because it involves the life of the Christian religion. We have been careful to exclude the Bible from our public schools, and yet, in our ignorance, we permit a theory to be taught that destroys the Bible as a book of authority by denying miracles, revelations and what the Christian regards as supernatural. I have sent the above list of questions to the heads of the leading universities in the United States, including presidents of State universities, and have received answers from many of them. Question 4 is: "Is evolution to be regarded as a science, or only a theory?" The great majority of answers by the presidents or their representatives are that it is a "theory." A theory is not a science. The theory of evolution is the greatest, the most comprehensive, that the mind of man has grappled with. It is an all-comprehensive theory of naturalism, that eliminates the God of the Bible, or forces Him into the background. This theory can have no place for the Lord's Prayer, for the cross or the resurrection. Its God, if it

acknowledges a God, is not "Our Father who art in heaven." In no respect can He be a Father—a God of love and mercy. He does not see the sparrow fall, nor the individual, but, at most, He presides, through His laws, over the destiny of the race.

It is indeed amazing that the theory of evolution, over which many master minds have exhausted their powers without coming to an agreement, should be taught with approval in many of our public schools and in most higher institutions of learning.

The vast scope of the theory is not comprehended by most teachers. The average evolutionist is a dogmatist of the strictest type. To him there is but one side to the theory. What he knows on the subject has been pumped into him mechanically. The books that he has read are all on one side. These books are conclusive. To him there is no other side. He says: "I agree with consensus of the opinion of men of science."

I am told that in the Ohio State University library there are from two to three hundred volumes *advocating* evolution, and only two or three volumes *against* it. This represents the kind of honesty that "stuffs the ballot-box." Why can not men of science be honest? Why may not both sides be presented by the teacher? Why place the books

of all leading evolutionists in the library and leave out all which oppose evolution? This university library needs renovating on the subject of evolution. I have written to the librarians of ten of the leading universities asking how many books in their libraries favor and how many oppose the theory of evolution, but have received no information, except from two, who state that they are well supplied with books on the subject. I have no positive information as to the kind of books on this subject in the libraries of universities, but I suspect that the condition of Ohio State University represents the condition of many of them.

Some time ago I was present at a class of about seventy-five young men and young women, when a professor of zoology lectured on the subject of evolution. In fine style he trotted out the little four-toed Eohippus and the other hippuses of succeeding periods to prove that the modern horse had been evolved. I exclaimed in mind: Give the Eohippus a rest! The *loss* of a toe, if granted, does not show how he *got* that toe by evolution. If you want to tackle the real problem, show how the horse got his toes, beginning with animals that had no toes, nor legs, etc.—back, back to the primordial cell. The professor regarded the loss of toes as good evidence of evolution.

A young woman in the class asked whether the theory of evolution was consistent with the Christian's idea of God or not. To this the professor replied, in substance: "It makes no difference to me whether there is a God or not." The public who employ teachers have a right to know what they teach. Does it accord with the genius of our Government or with our Christian civilization for a professor to proclaim his atheism to a class of young men and women in a State university? Is this to be accepted as a part of our educational system? Are citizens voluntarily giving their money to support such teaching?

Who is responsible for the appointment and retention of this class of professors on our Faculties? As a rule, the president of an institution selects the teachers. I know not who does this at Ohio State University.

Is it true in this country, as it has been especially in Germany, that, on the ground of "academic freedom," a man may proclaim his atheism or any other doctrine, however damnable to morals and to the Christian religion, and be secure from public criticism? Can any moral or religious qualifications be demanded of one before he is permitted to teach in our public institutions?

No President of the United States or public official in a high place has, so far as I know,

dared to proclaim that he is an atheist. I take it that our national motto ("In God we trust") is not entirely void of meaning to the majority of our people.

Think of the spectacle, if you can, of a teacher, a product of a modern university, who has been dogmatically taught the theory of evolution as a science, who has sat at the feet of professors who have presented a one-sided view of the theory, but who have failed to present any objections to it. Think of this dogmatic fledgeling, with his brand-new Ph.D., standing before a class of boys and girls pouring his dogmatic teaching on evolution into their minds, which are like empty buckets ready to receive whatever is poured into them by a teacher. This theory, this naturalistic philosophy of the universe, is being insinuated into the minds of our young people by dogmatic teachers, who know not what they do.

One who had been a student in Ohio State University said to me: "Three-fourths of the professors in the university are atheists, and the other fourth are agnostics and Christians." This I took to be an exaggeration, but it indicated a certain condition. Another who had been a student there said that a considerable number of the professors in that institution were agnostics and atheists. If such impres-

sions were made on these two students of good ability, what must have been the impression left upon the thousands of students in attendance?

I have noticed recently in print that this institution is proposing to give special attention to the Y. M. C. A. A good house-cleaning would be a great help to the Y. M. C. A. workers.

It will become more and more evident as I proceed in considering the answers to my questions by various men that the fundamental difficulty in our educational system has its center in our greatest educational institutions. Not that the heads of our universities are intentionally adverse to that which is true and good, but that a good deal of the teaching is committed to those who do not wield the proper influence to mold sterling character. The modern rage is science and the "scientific method," and especially evolution (falsely so called in most cases) running through the whole curriculum. In chemistry and physics there are many known facts and some theories, and we may speak of these as branches of physical science. In biology are some facts and endless theories, all of which are claimed by many to be science. The theory of organic evolution has become the backbone of all biological teaching, and the false impression is

made by those who teach it that the theory is established science. It should be remembered that organic evolution is only a necessary part of cosmic evolution, and that the latter tries to account for conditions in all times and all places in the universe.

Mr. Darwin began organic evolution with a few forms half-way up in the scale of organization, such as are found in the primordial period. But he had no logical right to begin there unless he projected his theory backward in time, to account for the evolution of the forms with which he began. It is admitted by evolutionists that the first living thing must have originated by evolution, if the theory is true.

The following is an accepted fact, stated by Chancellor Jordan and other biologists: "All life comes from life." But the theory of evolution, which, as science, accepts only matter and force as the immediate data of all things, *must* include spontaneous generation as a part of her process. They were the only data in the world before life appeared, and men are still looking to "resident forces" to account for the origin of life. But they look in vain.

Jordan and Kellogg say: "Finally, we may refer briefly to the 'grand problem' of the origin of life itself. Any treatment of this ques-

tion is bound to be wholly theoretical. We do not know a single positive thing about it."

E. D. Cope says: "Failure of the attempts to demonstrate spontaneous generation, if continued, is fatal to this theory."

Professor Tyndall's nearly a thousand experiments with organic infusion led him to conclude that *life comes only from life.*

Darwin said: "The inquiry as to how life first appeared is hopeless."

Professor Conn says: "With all our research, the essence and origin of life has thus far eluded our grasp."

Again, he says that the simplest living thing is a cell, and that a cell is not simply a chemical compound, protoplasm, but an extremely complex organism of "many parts acting in adjustment to each other. . . . The more it is studied, the more complex it appears. It acts rather as a machine. . . . So far as we know, *unorganized protoplasm does not exist.* The properties of life seem to be manifested in nothing simpler than the organic cell."

The question of spontaneous generation is not simply chemical, but it involves the production also of a very complex organism in which life can manifest itself.

The theory of universal evolution necessarily includes spontaneous generation, of which there is no evidence. A theory which must assume

an impossibility can not be "science." This assumption is the beginning-point of organic evolution.

The question may be asked: "Why not say that God created the first living thing?" For God to have done this would have been a miracle, a supernatural event, and science deals only with natural forces, and can not include a miracle as a part of her process. As Haeckel rightly says: "To admit one miracle opens the way to other miracles."

This all-inclusive theory of scientific evolution, as it is claimed, assumes that the natural forces at its command are the only forces in the universe, and it claims that there can be no manifestation of supernatural power other than by natural processes. The assumption that the so-called scientific method is universal can not be proved. Science can not grasp all the processes of the universe. The theoretical highway is broken in pieces by *many impassable gulfs.*

Chancellor Jordan, in answering my sixth question, says: "The teaching of evolution is only common sense and common experience expanded." As to what is meant by "common sense" in teaching the subject of evolution in our public schools I have already expressed my opinion. As to whether the "common sense" of teachers in our secondary schools, for

example, will enable teachers honestly and fully to present the subject or not, and whether these schools are proper places or not, may well claim Chancellor Jordan's earnest consideration.

Is it not true that what the pupils would get would be a few facts on one side of the subject, presented in a dogmatic way, and practically nothing on the other side? The result of this kind of teaching is inevitable—harmful, useless, unscientific. There is enough real science of practical importance to occupy all the time of pupils in secondary schools.

The teaching of evolution ought, in my opinion, to be *excluded* (by law, if necessary) from all public schools below the universities, and in the colleges and universities it ought to be taught *honestly* and fully to the select few who have the ability to comprehend it in all its bearings.

Chancellor Jordan says: "The teaching of evolution is only common sense and common experience expanded." Organic evolution, if it has taken place, extends back over millions of years, while our "expanded experience," at most, reaches back but a few years. When we see a living horse, we are absolutely certain that it had two living parents. And, by our various experiences with animals and plants, we conclude that life comes only from life.

This rule applied to the ancestors of living things would lead us into an endless past, and compel us to state that living things always existed in the world. But we know that life had a beginning here. The statement that living things always existed is squarely contradicted, if our experience could reach back to the first living thing. Our "experience expanded" knows nothing of the origin of a single species of the probable millions that exist and have existed in past ages. Nor does this "experience" reveal to us any method by which nature could render cross-sterile closely related varieties so that they could become millions of species. An impassable barrier has been erected at this point which no plausible theory explains. Varieties under domestication, preserved by man's selection, would soon cease to be varieties in a state of nature where all would be free to mingle. Man propagates varieties by selecting and separating, but nature obliterates varieties by mingling. Under domestication there is no struggle for existence, and, consequently, the law of natural selection does not apply. In a word, I may say that our "experience expanded" does not extend far enough along the road of evolution to help it over the most difficult points. "Experience expanded" by *imagination* will serve the purpose.

Question Seven.

Question 7—To what extent is the doctrine of evolution accepted and taught in the university of which you are chancellor?

Answer—"To the same extent as the doctrine of gravitation. The living questions relate to the details, on many of which, for lack of complete evidence, there is much difference of opinion. In both cases any other theory consistent with the facts would be given equal credence. All theory is provisional. But one could no more return to the idea of the separate creation of species than to the old idea of planets steered through space in the hands of angels."

No one doubts the truth of the laws of gravitation. Every teacher accepts them as firmly established. And so every teacher is to accept and teach organic evolution as established beyond question. No further proof of it as a fact is needed. The case has been closed in its favor, the verdict has been delivered, and there is no possibility of a successful appeal. The professor is not called upon to prove the *fact* of evolution. He has only to build upon the *sure* foundation, and to go forward with no uncertain footsteps! Shades of Sir William Dawson, who spent much of his life in combating this theory, which is being widely heralded as an established *fact!* And what shall we say of Agassiz, America's leading zoologist; of George Frederick Wright, a geologist of world-wide reputation, and of

a large number of others who maintained that evolution is only a theory unestablished?

It is inevitable, I take it, that when "Evolution and Animal Life," by Jordan and Kellogg, is used as a text, and I presume it is in Stanford University, that the students accept the theory that it advocates. Above, it is said: "Any other theory consistent with the facts would be given credence." This is a fair statement, but, as a matter of fact, could it be expected that students in classes would be able to present any other theory? Is it not a fact that the student in a case of this kind is at the mercy of the teacher? A theory that rests on so sure a foundation as the laws of gravitation is certain to be more or less dogmatically taught. The evidence in favor of it is magnified, and that opposed is touched upon lightly or omitted.

The theory of organic evolution, as is admitted by evolutionists, necessarily includes the origin of the first living thing. Without life he has nothing with which to begin the living process. As to spontaneous generation, Chancellor Jordan says: "We do not know a single positive thing about it. . . . All life comes from life. . . . The biologist can not admit spontaneous generation in the face of the scientific evidence he has. On the other hand, he has difficulty in understanding how life

could have originated in any other way than through some transformation from inorganic matter." He does not understand it in that way. Naturalism being his sole method, he must accept spontaneous generation.

"It is not clear that science has been really advanced through the conception of the essential unity of organic and cosmic evolution." Certainly the claims of organic evolution, which is posing under the name of "the scientific method," would be much relieved if it did not have to begin in the mineral world. Mr. Darwin cut various Gordian knots when he began half-way up in the animal kingdom and assumed spontaneous generation and the evolution of sub-kingdoms, etc. There is no proof as to how a star-fish, a snail, a spider or a fish came into existence by the process of evolution. None as to the origin of sex, wings of various kinds, legs, eyes of numerous kinds, or of any other of the various organs of the body. Feeling, instincts, mind with its many powers—these are all *assumed* to have originated by the "scientific process" of evolution. We are told that the *fact* that these things have been brought about in this way is as certain as the laws of gravitation. This being true, how is the pressure of "*science*" to be resisted?

Evolution is a theory that assumes everything of importance. That this theory, which is broken into a thousand fragments by impassable gulfs that cross its pathway, should be called "scientific" is beyond same thinking.

In organic evolution there must be an unbroken line of generic continuity among organisms, so that any living form, if we knew its ancestors, could be traced back to the first living thing with which the process began.

The genetic continuity that is necessary in the physical organisms of the organic world is equally necessary in the psychological world, but we have no evidence of its existence there.

All human history in which the actions of many millions of human minds have had their part as, to a large extent, *independent* units, is not an illustration of evolution. There is a lack of continuity in the thinking of different minds. The cotton-gin was the invention of Whitney, the sewing-machine of Howe, the steamboat of Fulton, the telegraph of Morse, and the telephone of Bell. There was no continuity of thought conveyed by other people to each of these inventors, but their inventions represent their own original, individual thoughts in each case. It is true that in each case the inventor used the results of the labor of other minds, but his invention involved original material not contributed by other

minds. And so the millions of inventions fail to show continuity in the mental world. The freedom of the human will to choose and to execute forbids mental continuity. The human mind would be a mere machine if its actions were all dictated by others. Its supremacy rests upon the fact that it is free.

Men talk about evolution in human history. History is made by the mind of man. To be sure, there has been progress, but this progress can not properly be called evolution, because of the lack of genetic continuity. The progress all along the line is due to *new, original* thoughts of individual minds—thoughts which have not been contributed by others, and, consequently, are beyond the scope of evolution. Human history is not a fit field for the word "evolution." When thus used, it forsakes the meaning that it has in organic evolution. The word "history" alone will express the thought.

I presume that the word "evolution" is used, in history and other fields, because it claims to involve natural causes only. A perfect "philosophy of history" would involve at least a knowledge of the complete psychology of the principal characters involved.

No prophet could have foretold the action of the principal minds that precipitated the recent World War. None could foresee the results of the mental operations of the German

Emperor—self-centered, vain, overly ambitious, with greatly magnified views as to his place in the world's affairs. With a mind half insane, thirsting for dominion, believing in the almightiness of the machine of death and conquest that he had put in motion, he stood upon the portico of the Potsdam Palace and told the people that the war would be short, that his victorious hosts would return with flying banners when the leaves fell in the coming autumn. *"Gott und Ich,"* according to his views, were allies in supreme deviltry against the human race. But God wouldn't stand for it.

The causes of the conflict no one could see. The real causes were human minds whose actions had, as much as possible, been kept concealed. The world had been grossly deceived. But the world gradually opened its eyes to the fact that a great nation had for a half-century given its thought and its substance to prepare for slaughter and world-wide conquest. The forces of death were made supreme. Some writers maintained, shortly before the war, that another great war could never occur. No process of evolution, properly speaking, can be seen by which the conflict was brought about. Many individual, independent minds were at work contributing to the results that followed.

That there are certain things that help to determine results is well understood. That "righteousness exalteth a nation" no one can doubt. That "the nations which forget God shall be turned into Sheol" is evident.

The seer may rely with the certainty of the laws of gravitation on justice, mercy, truth and love as producing beneficent results in human society, and with equal certainty upon the fact that injustice, cruelty, lying and hatred will bear their fruits of destruction.

"Do unto others as you would have them do unto you," and "love your neighbor as yourself," are as certain in their results, when applied, as are the laws of gravitation. They are causes in the moral, spiritual world which revolutionize human society.

But it is not evolution, in any proper sense, by which principles of ethics produce their results, for the evident reason that they are not working on machines, but upon free human beings who can choose their course of action in every case.

Men have become so wedded to the word "evolution" that they drag it into every field, and make it do service. In most cases, I think, it means only the changes that take place due to lapse of time.

Chancellor Jordan says: "But one could no more return to the idea of the separate crea-

tion of species than to the old idea of planets steered through space in the hands of angels." In other words, we are absolutely certain that each of the millions of species has been derived by evolution. This is said in the face of the fact that not a single species is known to have been evolved. Darwin's son, writing the biography of his father, says: "We can not prove that a single species has changed. No example can be given. Only varieties that are cross-fertile with each other have been produced, but the theory of evolution demands varieties that were cross-sterile with each other—a thing that is not known even under domestication." The millions, as claimed, of species are cross-sterile, so that, if they cross at all, the offspring can not propagate their kind. There is no evidence that nature has any means of producing cross-sterility among varieties of the same species, and yet cross-sterility must have been produced millions of times, if the doctrine of evolution be true.

If it be granted, by way of argument, that fishes in caves lost their eyes by disuse, or birds lost the use of their wings for flight by disuse, or horses their toes till but one on each foot remains, this is no proof as to how the eyes of vertebrates, the wings of birds or the toes of horses originated *de novo,* beginning with

nothing. The supreme question of evolution is that of *origins* all along the line from the imaginary primordial cell, derived by spontaneous generation, to the body and mind of man. The theory is purely imaginary. It is, so far as I can see, the only complete naturalistic theory that can be offered. It rests upon the assumption that the only forces in the universe are the forces of nature with which science deals and produces her results. This leads to the question of the supernatural, which I will not consider at present.

In the *Christian-Evangelist* of Sept. 16, 1920, page 935, is a statement by Charles F. Hutsler, minister of the Christian Church of Palo Alto, Calif. It is as follows:

> "We have organized a Christian fraternity among our Christian Church students in Stanford, which has proved a very potent factor in conserving their spiritual interests during their university career. I learned after only a few weeks' labor here that many of our Christian men and women are not only lost to our own brotherhood, but also to the cause of Christ, when they come under the influence of this institution. Thus it was imperative that we have some special agency which would save them from such a fate."

The above statement needs no comment. The fact that such a condition is possible in a great university is a sad comment on the efficiency of Christian civilization. The university

is supposed to exist for the good of the people, but what are we to think of the intelligence of Christian fathers and mothers who will subject their sons and daughters to such unfavorable influences? The atmosphere of an institution, due frequently to the dominating influence of one or a few minds, has much to do with the character of students. One healthy skunk can perfume a large area.

But I am not writing especially about Stanford University. What is said of that may, I feel sure, be said of a large number of our leading universities. Some who have answered my questions have indicated that the teaching of evolution, as often taught, has had a baneful influence on Christian teaching.

VII.

ANSWERS TO QUESTIONNAIRE

By Charles W. Eliot, President Emeritus of Harvard University, and by Arthur T. Hadley, Ex-President of Yale.

CHARLES W. ELIOT, president emeritus of Harvard University, Cambridge, Mass., answers my questionnaire as follows (I omit the preliminary statement):

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"Evolution does not seem to me to be a *science* of creation, or of anything else. It is merely a scientific hypothesis. As such, it has been of great service in the progress of biological science during the past sixty years."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"Le Conte's definition of evolution is correct, but only as a statement of a changing or developing theory."

3. Is not evolution a universal process, beginning in the inorganic world and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process? the one universal science?

Answer—"To the first and second questions the answer is yes. To the third question the answer is that the evolution hypothesis is not a science at all."

4. Is evolution to be regarded as a science or only a theory?

Answer—"Evolution is only a theory."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"One who believes evolution to be a universal process which describes God's habitual mode of action will have difficulty in accepting as facts or correct narratives of actual events the Gospel accounts of the miracles attributed to Christ."

I fully agree with this statement. Cosmic, theistic evolution has no place for miracles. It repudiates Christ by denying His miracles.

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly

accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"Evolution can not be taught except to the older pupils in the public schools. To apprehend the hypothesis needs good mental faculties and a certain maturity of mind. I should think that good teaching of the evolutionary hypothesis to competent children in the public schools might diminish, in the recipients of the instruction, their faith in the ordinary Catholic or evangelical Protestant interpretations of the New Testament."

The great majority of those who have answered my questions agree that evolution is not a science, but only a theory. It is so wide and complex and difficult in its details that only the few have the training and mental equipment to give it the proper consideration. I do not believe that evolution ought to be taught even "to the older pupils in the public schools." I am sure that the teachers who would teach the subject are not fully prepared to present both sides as should be done when taught. I believe that the teaching of evolution is mostly dogmatic, and that the result of teaching it is a new crop of dogmatists. I am aware that there are those who hold that the subject of evolution greatly expands the mind. I think that, as taught, it warps the mind and closes it against much truth.

President Eliot expresses the opinion "that good teaching of the evolutionary hypothesis to competent children in the public schools" might diminish their faith in the commonly accepted interpretations of the Scriptures among Catholics and Protestants.

The great question with regard to teaching this *theory* is as to its effects on the fundamentals of Christianity. The hope of civilization is founded on the teaching of Christ, as presented in the New Testament. It is commonly believed by Christian people that Christianity is the only universal religion and that Christ is the only perfect example. The great effort of the Christian world is to proclaim Christ to the many millions of people in the heathen world. The theory of evolution as proclaimed by Darwin, in which *chance* is the only factor, does not support the Christian religion. Mr. Darwin said: "Science and religion must each run its course; I am not responsible if the meeting-point be far away." Missionaries are not being sent by Christian people to the heathen world to proclaim Darwinism with the hope of thus redeeming the heathen from their degradation. Darwinism has no system of ethics. Its great principle—"natural selection," "survival of the fittest"—is one of absolute selfishness, which defies the principle of universal love.

Evolution can not account for conscience, for the use of that "imperious word ought," for self-consciousness, for abstract ideas, for man's belief in one supreme God, for his belief in a spiritual world and a future life. In the psychological world, in the ethical and religious worlds, evolution is helpless to account for the present order of things, because it places all things on the basis of naturalism, which is the only scientific basis on which it can exist. While there may be differences of interpretation, and in many cases wrong interpretations, of parts of the Scriptures, there is substantial agreement among all the creeds of Christendom as to the Fatherhood of God, the deity of Christ and the inspiration of the Bible. Even the theistic evolution, that confines God solely to the method of naturalism, uproots these beliefs, which have been stamped on the human mind for thousands of years, have determined the course of Christian civilization, have been a refuge in times of trouble, and have been the guiding star that has led the best of the race in its forward march.

Beecher said to Ingersoll on one occasion: "As I was passing along the street, I saw a large, strong man attack a poor cripple, who was crossing the street on crutches. He knocked him down in the mud and broke his

crutches. What ought to be done to that man?" Ingersoll answered that he ought to be severely dealt with. "Thou art the man!" exclaimed Beecher. "You would take away the Bible, on which the human race has been hobbling as on crutches, and give nothing in return." And so the theory of evolution, with its countless assumptions, eliminates Christianity, which has supported tottering humanity, and gives nothing in return. This theory is cold and intellectual, and can never satisfy the heart longings of humanity.

The life of Christ, a perfect living being, full of wisdom and truth, who "went about doing good," whose life touched humanity in all its phases, whose guiding motto was love to God and love to man, is worth more to the race than all the theories invented by man since the foundation of the world. The great question is, What shall guide the ignorant, struggling race along its devious path?

The educational system in the universities of Japan is fruitful in agnostics and atheists. The so-called modern thought, propagated by infidel teachers, is in the ascendency, and will increase the passion for suicide that prevails among many educated Japanese.

7. To what extent is the doctrine of evolution accepted and taught in the university of which you were president?

Answer—"I imagine that the hypothesis of evolution is accepted and taught by all the teachers and students of science in Harvard University, although different minds entertain very different views of the meaning and value of the hypothesis. It is ten years, however, since I resigned the presidency of Harvard, so that I can not speak confidently about the present attitude of the university as a whole towards evolution, because the theory itself, or the statement of it, changes rapidly with the advance of knowledge and the incoming of new visions and expressions concerning it."

In the above, President Eliot expresses the opinion that the teachers and the students of science in Harvard generally accept the hypothesis of evolution, but that "different minds entertain very different views of the meaning and value of the hypothesis." I think that this expresses the attitude of the minds of most people who have considered the subject, both as to its truth and its value. There is no general agreement as to what evolution is, but there is a vague idea in the minds of many that it is the one thing in recent times that *must be accepted, because it is the fad* of the times. Whisky was, for a good while, considered the universal remedy for all ills of the flesh, and the word "evolution" has

been introduced into the psychological pharmacopœia, and is regarded by many as a universal panacea for all philosophical troubles.

As an illustration of the inefficiency of the average college graduate in teaching, Transylvania College had, several years ago, a graduate of Harvard as a teacher in the Department of Science. This excellent young man felt it his duty on various occasions to teach the doctrine of evolution. He regarded the doctrine as true because he had been taught it in the university. He would close his remarks by saying: "I don't know much about it; you need not tell anybody." I take it that his knowledge of the subject was a fair average of that of the college graduate generally.

PRES. (NOW EX-PRES.) ARTHUR T. HADLEY'S ANSWERS TO QUESTIONNAIRE.

YALE UNIVERSITY.

NEW HAVEN, Conn., June 14, 1920.

MY DEAR SIR:—Evolution means orderly growth. It is a process, not a science. The word "evolution" is sometimes used to mean a theory that all the phenomena in the world are marked by orderly growth, as distinct from sudden changes; but even this is rather a stretch of the meaning of the word. In the

light of these sentences, I can answer your questions.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"No."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) by means of resident forces," correct?

Answer—"Yes, as far as subhead (1) and subhead (2) are concerned. Subhead (3) appears to limit the definition more than general usage would approve. Webster's dictionary does better."

3. Is not evolution a universal process, beginning in the inorganic world and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process? the one universal science?

Answer—"It is quite possible that it may be a universal process; but it has not been proved, and the proof is likely to be very difficult. It is not a universal science, because it is not a science at all."

It is evident, I think, that the above question, involving cosmic evolution and including organic evolution as a logical part of

it, must remain a hypothesis for lack of proof. But is not this the hypothesis that the world is asked to accept as a substitute for a large part of the Christian religion?

4. Is evolution to be regarded as a science, or only a theory?

Answer—"Already answered at the beginning."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"Evolution, or orderly growth, is the antithesis of miracles or sudden arrests of natural laws. The development of a belief in evolution, therefore, makes people more critical of the testimony in support of the miracles. But beware of assuming that there is any such thing as a scientific *doctrine* of evolution. Different theories of evolution have been held during the last twenty-five hundred years, and it would be premature to characterize any one of them as a scientific doctrine."

"Evolution or orderly growth is the antithesis of miracles or sudden arrest of natural laws," says President Hadley.

It is evident that the burden of proof is upon him who claims that an event has occurred that can not be attributed to natural forces; as, for example, the turning of water

into wine, the sudden healing of a leper or the raising of the dead. Such events are spoken of as miracles, and are regarded as supernatural events. The things of the existence of which we are certain are the different kinds of matter, the forces of nature and some psychological phenomena. Chemism, heat, light, electricity, magnetism, gravitation, are some of the forces that exist. The forces do mechanical work on matter, giving it various kinds of motions. Without the action of force the matter of the universe would remain stationary. Forces produce results by acting in conflict with each other, the stronger force overcoming the weaker. We take it for granted here that theism is true, that God reigns, and that all that He does harmonizes everywhere and at all times. In some sense it may be accepted that God works according to fixed laws, both in the physical and spiritual worlds.

Do not, however, let us put God in a straitjacket by an improper conception of *law.* Laws in the physical world are simply the methods according to which the forces produce their results. In chemistry the results produced by the chemical forces that reside in the atoms themselves can, under known conditions, be foretold with great precision. The chemist is certain that when two volumes of

hydrogen and one volume of oxygen are mixed and caused to unite by the introduction of a spark that water will be the product of the union. He is certain that they always unite in the same proportion to form water; in other words, that water has a fixed composition.

Pass a current of electricity through the water, and it is separated into its two constituent elements—hydrogen and oxygen. The electricity has undone the work of the chemical force by shaking apart the united atoms of the two elements. It does this according to *laws* of electricity, as we are accustomed to say. The *law* as to the action of hydrogen and oxygen upon each other and the *law* as to the effect of electricity on water are equally fixed and unchangeable. One *law* annihilated another *law.* Electricity overcame chemism. Was it a miracle? Verily not.

The growing plant overcomes, decomposes, the chemical compounds, thus overcoming the chemical forces of the substances from which it obtains food to build up its tissues. It is compelled to contend with and to overcome the inorganic forces of nature in order that it may live. The animal decomposes plant substances, reorganizes them, and thus builds up its own tissues—and all according to so-called

laws. The fact is that nature's processes are carried on by perpetual conflict of opposing forces, each acting according to its own methods. She does not do her work by harmony of forces, but by conflict, in which the strongest gain the victory.

The forces of nature are the tools with which man carries out his infinite purposes. He is obliged, when he uses a force to do work, to take notice of the ways in which it will act. He does not try to run a steam-engine with electricity nor a dynamo directly by steam.

Great fires sometimes rage in the forests of the West, destroying millions of cords of wood, and the immense quantity of heat is soon radiated into space. That is all that nature can do with the heat. The mind of man can cause that wood to generate heat that can be applied to countless machines, manufacture all useful articles, ply ocean steamers, move a thousand locomotives through the land, carrying freight and passengers; in other words, the human mind can cause a given quantity of heat to perform endless kinds of work that nature fails to do. Man's mind is supreme in directing the forces of nature. It determines the work to be done, and directs the various forces into channels where they do the desired work.

President Hadley says: "Evolution or orderly growth is the antithesis of miracles or sudden arrests of natural laws." We have seen that in the case of hydrogen and oxygen to form water according to a chemical law the decomposition of water is effected by electricity according to its laws. In this case, has not the electricity arrested the "natural law" of chemistry that caused the elements to unite in a definite proportion and that holds them in union as water? Heat disintegrates practically all the compounds formed in the organic world. In doing this, does not heat, a *force*, acting according to "natural law," overcome a great number of "natural laws," *forces*, by which the organic compounds have been formed, and by which they continue their existence? What is meant by the "sudden arrest of natural laws" in performing miracles?

All chemical action, all physical results, all processes in the living world, all human activity directed by mind, involves the overcoming of certain forces or resistances, acting in their respective spheres, by superior forces. The combustion of coal under a boiler, involving the action of chemical forces, produces steam, which, by its expansive force, produces mechanical motion of the piston of the engine; this imparts mechanical motion to the dynamo,

which converts its mechanical motion into magnetism and a current of electricity, and the current gives rise to light for illuminating purposes; it runs motors that do the mechanical work of driving cars and machinery of many kinds; it reduces metals from ores, thus doing chemical work; magnetizes great artificial magnets, that lift many tons, or it may be converted into heat for cooking and heating purposes. Instead of starting with fuel under the boiler, we might have begun with a falling weight, as is done at Niagara Falls, to obtain these various results. The correlation of forces indicates that all the forces in the inorganic world are manifestations of one force. The infinite variety of results that may be wrought by this force in its many forms and under different names ought to make us slow to try to put a limit to the manifestations of force in the affairs of the world. We are in no condition to declare that this or that is not in accord with the "laws of nature," since we are not in a position to determine what the possibilities are. The miracles and the revelations of the Bible are no more wonderful than the natural processes that are going on everywhere in nature, *but naturalism seeks to eliminate them because she can not bring them within her process.*

As already indicated, in considering the correlation of forces, we deal with the same force from beginning to end, but it differs so much in its successive stages that we give it different names, and the methods of its action, or its laws, differ greatly from each other. Involved in the series are the laws of falling bodies, laws of chemical action, laws of heat, laws of light, laws of electricity, laws of magnetism, laws of mechanics. Here, then, we have a series of *laws*, methods of action of forces, of the same force under different manifestations and known by different names.

It is under the control of mind that correlations of force are especially made to manifest themselves. The world, until recent times, sat in ignorance of most of these facts. Mind is the dominant power over force in its various manifestations. Force is the tool with which mind works its purposes in the world.

The relation between mind and force is of supreme importance. Mind is more than mechanical force. There is no genetic relation between any psychological manifestation and the forces of the inorganic world. Feeling, reason, instinct, conscience, self-consciousness, universal love and all mental powers are entirely beyond the region of the various manifestations of force in the inorganic world. These powers demand for their beginning the

exercise of an intelligent force. *Evolution has made absolute failure to prove the origin of any mental power.* She *must* call to her aid the power that can perform a miracle, though she refuses to call that power "God." As a scientific process, evolution must stand alone.

Man is continually destroying the works of nature which natural forces, acting according to their methods, laws, have produced. His mind compels his body to undo much of nature's handiwork. With humanity in the saddle, with mind everywhere in action, with freedom of the will, there is no predetermined goal for human events, no fixed channel in which history runs. There can be none while man is a free moral agent.

Man habitually prevents the action of the forces of nature, so that these forces, or laws, as they are called, do not produce the effect that they would otherwise produce. His mind makes him supreme in managing the forces of nature, so that new and original work is done.

Yet, in accomplishing his purpose, man must continually recognize that each force acts in certain definite ways, that we call laws.

President Hadley speaks of miracles as involving "sudden arrests of natural laws." It seems to me that he uses the word as a sub-

stitute for forces. The laws of nature are not forces, but the methods according to which the forces act. Man, by controlling the forces of nature, performs what I call human miracles. He obtains his results by causing certain forces to overcome other forces. For example, he makes a locomotive by causing natural forces to act upon different kinds of matter, thus overcoming forces by the use of stronger forces. If God were to make a locomotive as man makes it, we would call it a miracle.

The fundamental principle involved in performing a miracle is, as far as I can see, the overcoming of certain forces by means of stronger forces directed by God Himself in a supernatural way. A miracle does not involve a conflict with nature any more than actually exists among the forces of nature. Everywhere these forces are doing their work by conflicting with each other. We strand ourselves in thinking by the use of the word "law," a word that is thought to represent that which is immutable in nature. Now, in an important sense, as I have shown, law, the action of the forces, is not immutable. Under the direction of mind the various forces are plastic, being guided into a great number of channels. The great mistake that universal evolution makes is its claim that the forces

manifested in the inorganic world are the sum total of forces that exist in the universe, and that, consequently, out of their action on matter sprang all things.

There must be a power above the physical powers of nature which could have done the supernatural work that evidently has been done, and this power the Christian calls God.

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"It will be good. It will compel people to lay more stress on the moral and spiritual elements."

President Hadley has already said that "evolution, or orderly growth, is the antithesis of miracles." In other words, the theory of evolution eliminates miracles from the New Testament, and this "will be good," because "it will compel people to lay more stress on the moral and spiritual elements." This is a fair statement of a prevalent view; but, according to the views of those who accept the "deity of Christ," which includes the overwhelming mass of the Catholic and Protestant worlds, the above view repudiates Christ by denying His miracles. It makes Him only an erring man; denies the miracle of the

resurrection of His body; makes impossible His commandments to His apostles, given *after* His resurrection, to "go into all the world, and preach the gospel to every creature;" makes impossible His ascension, because He had not been raised from the dead, and impossible a "kingdom of heaven," over which He is to be the "eternal King."

Of course the ethics of the New Testament, "the moral and the spiritual element," are of vast importance. Even Haeckel approves the Golden Rule and the law of love as the best ethics for his monism, but he denies the existence of God, repudiates Christ and the Bible, and places belief in a future life as an unsupported dogma.

The "moral and the spiritual element" in Christianity may well be stressed much more than it has been—this ought to be done; but, on the other hand, anything that lessens the supremacy of Christ by denying the truth of any part of His teaching, as set forth in the New Testament, brings Him into disrepute. When men's faith in Christ as the "Lamb of God who takes away the sins of the world" fails, then there can be no kingdom of heaven wherein dwelleth righteousness. The question with regard to Christ is, not what is most important in His teaching and work, but have the writers of the Gospels given correct ac-

counts of what He said and did? To eliminate from the records all the accounts of miracles, as evolution does, is to weaken the value of what remains. Do unto others as you would have them do unto you, is a statement of vast practical importance. Men can not see, however, that this Golden Rule is necessarily a revelation from God. But when they saw Jesus perform miracles, they said: "No man can do the works that thou doest unless God be with him." The elimination of miracles by the teaching of evolution can have but a destructive effect on the essential doctrines of Christianity. This teaching also denies the inspiration of the Bible as held by Christians.

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"We show the facts in evolution, in biology and history as fully as we can. We try not to teach this, or anything else, as a doctrine."

I do not see how the word "evolution," as applied to the material organic world, in which genetic continuity is a necessary part of the process, can be applied to human history which grows out of free mental processes of many minds where continuity does not exist. We may, of course, think of the

changes that take place in the mental attitude of nations as evolution, but, when we do this, we give a new meaning to the word. It lacks mental continuity. The burning desire to find a word that includes all the physical and psychological changes in the universe has led to the use of the word "evolution." But it has a variety of meanings.

President Hadley's statement that "evolution means orderly growth" seems to be very general, and it might include all changes that take place in time. The meaning of the word has been definitely fixed for the organic world by Darwin's "Origin of Species."

"We show the facts in evolution, in biology and history as fully as we can," writes President Hadley. This is a fair statement. The facts ought to be shown, and *both* sides shown as fully as possible.

I know not what the teaching of this subject is in Yale University, so what I say bears upon the teaching of the subject in general.

Several things are involved in the teaching of this, as of other subjects.

First, "academic freedom," which permits the teacher to teach anything he pleases concerning the subject which he is called upon to teach. This freedom is supposed to be democratic, and under it the teacher may ex-

press the most diverse views, sometimes hurtful to morals and religion, with the assurance that he will not be called to account. It would be well for some of the academic authorities to remember that even the United States, where freedom is supposed to reign, has certain laws by which she can condemn and ship Bolsheviks to Russia. The authorities of a university ought to feel equally free to deal with its Bolshevik teachers. From what I know of conditions, I feel sure that Ernest Haeckel would be undisturbed as a teacher in the chairs of some of our universities.

Second, the attitude of the teacher towards his subject. It is very generally agreed that evolution is only a theory or hypothesis, and not a science. It is *theoretically* held to be provisional, while the impression that is made on the mind of the pupil is that it is *established science.* The teacher of this subject may be an atheist, an agnostic, a pantheist or a Christian. Probably he may be generally one of the first three. His views are crystallized on the subject of evolution. His pupils know in advance what his views are. Like the attorney that he is, he is armed with authorities to make clear *his side* of the case. In fact, to him, there is *no other* side of the case. He cites the books of great authors who agree with him, refers his students to

these books, which abound in the library (books of his own selection), and indicates that his views represent the universal consensus of the opinion of modern scholarship. He either ignores the other side or refers to it in a slighting way; says that they have written no books on the subject of any scientific value; says that they are old fogies, who have failed to catch "the modern vision," and they are destitute of the "new thought." The few volumes against evolution are buried beneath the hundreds which favor it, and these few are having a real "struggle for existence."

Third, the pupils who receive the instruction. As a rule, the subject of evolution is new to them. They are ready to be guided by the teacher. They listen with receptive minds. They are empty vessels. They receive what is put into them. The personality of the teacher, and frequently his emphatic and dogmatic way of teaching, do the work. There can be but one result of the ordinary way of teaching this subject, and that is a new crop of dogmatic evolutionists, who know little of one side of the subject and nothing of the other.

When taught in its fullness, it is a philosophy of the workings of the universe. Even when called theistic evolution, as a universal system of naturalism, it eliminates the super-

natural by denying all miracles, destroys the Bible as a book of revealed authority, and leaves the Christian religion stranded on the sands of naturalism.

The prevailing methods used in the teaching of evolution very generally result in the Christian faith of the pupil being destroyed, his head being crammed with dogmatic misinformation on the subject, and his being led to accept the "*theory*" of evolution as "*science.*" He is informed that unless he does so accept it he will be classed with the "old fogies," and with those that are "*out-of-date.*"

Such methods are so unfair to the pupil, to the public and to the Christian religion, the wonder is that we stand for them. Shall we not insist, if the subject be discussed at all, that *both sides* be presented by competent teachers? Else, is there not grave danger that Christianity may be doomed with the coming generations?

VIII.

ANSWERS TO QUESTIONNAIRE

By Dr. John J. Coss, Columbia University; Prof. R. M. Wenley, University of Michigan; Professor Nachtricht, University of Minnesota; Pres. Frank J. Goodnow, of Johns Hopkins University; Pres. William S. Currell, by Prof. A. C. Moore, University of South Carolina.

Columbia University, Department of Philosophy.

New York, June 24, 1920.

My Dear Professor Fairhurst:

President Butler has asked me to reply to your letter of June 14.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"No; it has nothing to say on creation."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"No; *progressive* usually indicates a judgment as to good or bad. Evolution does not concern itself with these terms."

3. Is not evolution a universal process, beginning in the inorganic world and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place, or that will take place in the future? In other words, is it not the one universal process? the one universal science?

Answer—"There are doubtless links, but each kind of organism, or custom, should be separately studied. Any such generalization as Spencer made is probably incorrect."

4. Is evolution to be regarded as a science or only a theory?

Answer—"As a theory covering in the most acceptable fashion natural phenomena which are subject to observation."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"Many evolutionists would tend to explain the miracles in a naturalistic manner, though the connection between the two is not a necessary one."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the com-

monly accepted teachings of the New Testament?

Answer—"The religious inspirational side should be stressed rather than the static, non-developing conception."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"Biological evolution is accepted, and the view that society changes in an understandable way is generally held."

May I call your attention to two books with which you may be already thoroughly acquainted? One is M. M. Metcalfe's 'Organic Evolution,' and the other is Jordan and Kellogg's 'Evolution and Animal Life.'

Very truly yours,
JOHN J. COSS, Executive Officer.

I have already expressed my opinions in what I have written that will serve as comments on the answers of Dr. Coss. In his answer to (3) it seems that he does not regard evolution as a universal process. In answer to (4) he accepts evolution "as a theory covering in the most acceptable fashion natural phenomena that are subject to observation." This being true, the process could not be universal. I take it that his answer to (5) eliminates the miracles and the so-called doc-

trinal parts from the New Testament. Answer to (7) shows that evolution is accepted in biology and history. Evolution is the only theory which naturalism, with any plausibility, can advance. The great question is: Does it necessarily eliminate supernaturalism? I do not see how "society changes in an understandable way" by evolution, in the sense in which the word is used in biology. The latter has to do with physical forms, between which must exist genetic continuity, and the former with the psychology of free individuals where no such continuity is possible.

UNIVERSITY OF MICHIGAN.

ANN ARBOR, Mich.

Prof. R. M. Wenley answers questionnaire on the request of President Hutchins.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"This seems to me to be quite misleading."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"*May* be sufficient as to the *how;* says nothing as to the *why,* and omits the all-important problem of the *unity* of continuity

and change. How can such a unity be thought?''

3. Is not evolution a universal process, beginning in the inorganic world and flowing in a continuous stream through the ages, including all material and psychological changes that have taken place, or that will take place in the future? In other words, is it not the one universal process? the one universal science?

Answer—''We are in no position to affirm so on available evidence.''

4. Is evolution to be regarded as a science or only a theory?

Answer—''I prefer to regard it as a hypothesis, in the strict logical sense of the term.''

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—''In my opinion this question is so framed as to be incapable of reply. I had always understood that the New Testament miracles were attributed to the historical Jesus.''

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament?

Answer—"I can not see it will have any effect other than the teaching of any scientific method must have. And this does not affect the New Testament, but merely certain theological interpretations of it—about which there seem to be very wide variations of view among theologians themselves."

7. To what extent is the doctrine of evolution accepted and taught in the University of Michigan?

Answer—"Representatives of the biological sciences assume it precisely as representatives of the physical sciences assume the Newton-Laplace-Maxwell hypothesis."

Professor Wenley's answers to Questions 1, 2, 3 and 4 are, I think, correct. I fail to understand why he can not answer 5. There is certainly enough of the "historical Jesus" in the Gospels to enable one to answer as to Christ's miracles. The question involves the fundamental difficulty that evolution has raised with regard to Christ. I can not agree with his answer to 6. In his answer to 4 he regards evolution "as a hypothesis in the strict logical sense of the term." In 6 he puts the teaching of this "hypothesis" on the basis of a "scientific method," thus clothing it with the dignity of the word "science." Teachers talk of evolution as a hypothesis and then talk

of it as a fact as well established as the laws of gravitation. He says that teachers of "the biological sciences assume it precisely as representatives of the physical sciences assume the Newton-Laplace-Maxwell hypothesis." *They do assume it, and there's the pity of it, and make it the backbone of the "science" of evolution.*

Question 6 involves the effects of this teaching on the commonly accepted teaching of the New Testament. It is true that all sciences have more or less hypothesis connected with them, but in none of them does a hypothesis so dominate the whole subject as does that of evolution. Soon after Darwin's "Origin of Species" appeared, theologians were quick to recognize the fact that the hypothesis of evolution affected the religion of the Bible in a way that no science had done up to that time. A theory that derives man from brute ancestors by way of descent physically and mentally forced itself upon the consideration of Christian people. *This hypothesis, evolution, unverified and unverifiable, has been forced before the world as science, and many people have become alarmed, and said, "We must conform our teaching to science;" when, in fact, they could, at most, only conform to a theory.*

Professor Wenley says that evolution "does not affect the New Testament, but merely cer-

tain theological interpretations of it,'' and that theologians differ as to interpretations. They are agreed as to the one God, the Father of all men, as to the deity of Jesus Christ, as to the existence of the Holy Spirit, as to the inspiration of the Bible and the miracles of the Bible. Evolution, depending upon chance, according to Darwin, has no place for God, inspiration or miracles—it puts all on the basis of naturalism, which is the only scientific basis on which it can be placed.

UNIVERSITY OF MINNESOTA.

Pres. Marion Le Roy Burton, of the University of Minnesota, by Professor Nachtricht.

1. Is Cope's statement that ''evolution is the science of creation'' correct?

Answer—''Not good because terms used require definition.''

2. Is Le Conte's definition that evolution ''is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces,'' correct?

Answer—''No.''

3. Is not evolution a universal process, beginning in the inorganic world and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place, or that will take place in the future? In other words, is it not the

one universal process? the one universal science?

Answer—"Depends on what you are aiming at. Too comprehensive for the original line of thought."

4. Is evolution to be regarded as a science or only a theory?

Answer—"Theory."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"On certain assumptions, yes. On certain assumptions, no."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"Properly taught, it should not conflict with the life of Jesus Christ. This can not be said of the New Testament."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"All the biologists believe in evolution. Some differences of opinion on details."

Professor Nachtricht evidently does not accept the New Testament as correct history.

JOHNS HOPKINS UNIVERSITY.

PRESIDENT'S OFFICE.

BALTIMORE, Md., Aug. 13, 1920.

My Dear Professor Fairhurst:

I am enclosing your questionnaire of July 8, answered by one of our professors, who is particularly qualified to make the replies requested. I am, very truly yours,

FRANK J. GOODNOW.

MY LETTER, WITH COMMENTS AND ANSWERS BY PRESIDENT GOODNOW'S REPRESENTATIVE.

"*Dear Sir:*—I have been making inquiry for the purpose of obtaining reliable information as to the status of the subject of Darwinism or any other doctrine of evolution in our educational system. A number of the superintendents of public instruction and presidents of normal schools have written to me on the subject. From their answers I infer that Darwinism, or some theory of evolution, is commonly accepted and taught in practically all of our high schools, normal schools, colleges and universities. There does not, however, seem to be agreement as to the meaning of the word 'evolution.' For the purpose of obtaining a correct definition, especially, I write to you and a number of others."

Comment by the Johns Hopkins Professor: "The writer seems to use the words 'evolution' and 'organic evolution' as interchangeable. They are very different in scope. Organic evolution is the process by which one organism undergoes modification and gives rise to an organism possessing other features, ultimately a different species."

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"No. Evolution is a process, not a science. The phrase is not a definition, but a personal point of view."

2. Is Le Conte's definition that evolution "is (1) continuous progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"Evolution involves progressive change, though not necessarily continuous nor always one of advancement in the scale of being. Many of the laws governing the process are obscure, while No. 3 is still more open to question. It is not well to make one's definition include too many hypotheses."

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the

one universal process, the one universal science?

There is no answer by the Professor to this question. The question shows, however, that the writer is mistaken in his preliminary remark that I seem to use the words "evolution" and "organic evolution" as interchangeable.

4. Is evolution to be regarded as a science or only a theory?

Answer—"Evolution is a process, neither a science nor a theory. The view that organic beings have undergone evolution is a hypothesis of considerable probability. The Darwinian form of this hypothesis needs modification."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"There is no conflict in truths from different realms. The discussion that has often arisen about the matter seems to have beclouded the question in many cases."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in the public schools on the commonly accepted teaching of the New Testament? In what way must this teaching be modified?

Answer—"It depends wholly on the breadth of view and clearness of thought of the person discussing the matter. I suggest that science be taught as science, and religion as religion, with confidence in the truth of both. An occasional discussion of their relations is desirable if given by a competent man."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"I suppose all students of natural sciences view evolution of organisms as highly probable. We are, however, keenly aware of the existence of many difficulties in the current hypothesis."

Concerning answer No. 5. Of course, "there is no conflict in truths from different realms." But many evolutionists do not admit that there are "different realms." According to them, there is but one realm, and it all belongs to evolution. When one admits a supernatural realm which accords with the natural, he gets into the region of revelation and miracles, which can not be accepted as a part of naturalism.

His first sentence in answer to No. 6 involves the competency of the teacher. I have already expressed the opinion that in most cases the teacher is not competent to teach the

subject. He is simply an advocate of one side of a theory, and his pupils are mostly passive recipients of what he teaches them. The writer suggests that "science be taught as science, and religion as religion, with confidence in the truth of both." This is good advice to those who can clearly distinguish the two. But he does not class evolution as science—it is only a "process." I am glad that the Professor is "keenly aware of the existence of many difficulties in the current hypothesis."

University of South Carolina.
(Columbia.)

Pres. William S. Currell answers by A. C. Moore, Professor of Biology.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"Yes, but very general."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"Yes; more specific."

3. Is not evolution a universal process beginning in the organic world and flowing, as a continuous stream, through the ages, including all physical and psychological changes that have taken place, or that will take place in the

future? In other words, is not evolution the one universal process, the one universal science?

Answer—"Evolution is a universal *law,* like the law of gravitation. It is not a science."

4. Is evolution to be regarded as a science or only a theory?

Answer—"A law of development beyond the stage of theory."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"Not inconsistent."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in the public schools on the commonly accepted teaching of the New Testament? In what way must this teaching be modified?

Answer—"It will make students more critical and will make for more careful and exact teaching of the Bible. Evolution is one fact in a great *philosophy* of life, and must be made to fit into that philosophy."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"Entirely."

In answering Question 1, Professor Moore accepts Cope's statement that "evolution is the science of creation." He answers by say-

ing "Yes, but very general." He accepts it as *science.* In answering Question 3, he says: "It is not a science." And further he says: "Evolution is a universal *law,* like the law of gravitation." I understand that gravitation is a universal force and that the mathematical laws of its action have been determined. Gravitation is not a law, but a force. Evolution is a very complex process brought about by various forces, the action of which will not admit of mathematical expression. I presume that Professor Moore means that evolution is a universal process. Being universal and resting on matter and the forces of nature as the only scientific basis, how can his answer to Question 5 be explained when he says that the scientific doctrine of evolution is "not inconsistent" with the miracles commonly attributed to Jesus Christ in the New Testament? If all events come under evolution, a scientific process, then no miracles could occur, for they demand a supernatural process.

With regard to Question 6. I ask how it can be that "evolution is one fact in a great *philosophy* of life, and must be made to fit into that philosophy"? Evolution, according to the Professor, is universal, and, being so, every philosophy of life must be made to fit into it as a part of it. A process that is all-

inclusive can not be forced into a position where it becomes only a part of the process.

The answer to Question 7. "Entirely" indicates that the theory is accepted and taught to the fullest extent. He says that evolution is "beyond the stage of theory." The conclusion is certainly very satisfying to the Professor. I am curious to know by what process of reasoning he reconciles universal process of evolution with miracles,

IX.

ANSWERS TO QUESTIONNAIRE

By President Campbell by Prof. John F. Bovard, of University of Oregon; Pres. Robert F. Vinson by Prof. D. B. Casteel, University of Texas; Pres. J. Ross Stevenson by W. Brent Greene, Jr., Princeton Theological Seminary; Pres. John Grier Hibben by Prof. E. G. Conklin, Princeton University; Pres. Lemuel H. Murlin, of Boston University.

"University of Oregon.

"Eugene, Ore., Aug. 11, 1920.

"*My Dear Professor Fairhurst:*

"I am forwarding your letter to Dr. John F. Bovard, in whose department the question of Darwinism most frequently arises, and who can answer your questions specifically.

"In a general way I can assure you that the principles of Darwinism are accepted in the University of Oregon, and no conflict is found between them and Scriptural teachings.

"Karl W. Onthank, Sec."

Professor Bovard writes, Sept. 19, 1920:

"*My Dear Professor Fairhurst:*

"President Campbell has referred your letter to me for reply. I am glad to state what I know, in a very general treatment.

"The specific thing that you may be reasonably sure of is that evolution is a fact, and not a theory. There are a great many theories as to how evolution came about, but, as I understand it, very few people to-day doubt the fact of evolution."

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"I would say 'Yes' to this question, provided you apply it in its broadest phases, and do not make it too specific."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"I believe that Le Conte's definition that evolution 'is continuous, progressive change, according to fixed laws, and by means of resident forces,' is a very fair way of stating the processes."

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place

in the future? In other words, is it not the one universal process, the one universal science?

Answer—"If one is absolutely consistent in his belief in evolution, he must include the inorganic world as well as the organic. In other words, it must be a universal process."

4. Is evolution to be regarded as a science or only as a theory?

Answer—"Evolution is to be regarded as a fact, and not as a theory."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"The doctrine of evolution is not inconsistent with the miracles commonly attributed to Christ in the New Testament."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teaching of the New Testament? In what way must this teaching be modified?

Answer—"This is purely a matter of interpretation. My opinion is that the teaching of evolution in the public schools is a proper thing to do, just as it is the proper thing to teach any facts that are true. The only safeguard I would care to use would be

that those who teach the doctrine of evolution know what they are teaching about."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"The doctrine of evolution is accepted through the whole university, and is taught in a good many classes, beginning with literature and proceeding through the whole curriculum to the science departments. The various departments and the various instructors differ, however, in their opinions as to how evolution came about."

"Yours very truly,

"JOHN F. BOVARD,

"Dean of School of Physical Education."

The word "evolution," since Darwin's "Origin of Species" appeared, has, to most people, had a specific meaning. It has been applied to the organic world. The principle of natural selection would derive all existing species from previous species by an unbroken continuity of genetic descent. I think that many of those who answer my questionnaire are using the word "evolution" in a variety of senses. I suppose that no one who is at all acquainted with the facts doubts that, through a long period of time, before life appeared, the earth was undergoing changes, and that

during the long-past geological ages and down to the present time the earth has been modified in infinite ways; that during past time countless numbers of species of plants and animals have come and gone, and that from the time that man first appeared on the earth down to the present time human history has been undergoing continual change. It seems to me that many view all these changes in a general way, and call them evolution. But the whole thing can not properly be called evolution in the sense in which we apply the word to the living world. In the latter, genetic *continuity* is absolutely essential. No such continuity, however, can be traced between the processes as a whole, to which I have referred. There is no known continuity from the inorganic world into the world of life, involving, as it does, spontaneous generation; there is no known continuity into the psychic world of feeling and instincts, no continuity into the many powers of human mind.

Professor Bovard indicates that evolution is taught throughout the college curriculum. Does he mean to say that they teach the same kind of evolution in Latin, Greek, literature, mathematics and philosophy that the biologists teach, in which genetic continuity *must* exist? There has undoubtedly been development and progress in all of these subjects, but there can

not have been continuity in the sense indicated. It seems to me that many people have become obsessed by the word "evolution," so that they call it into service on all occasions.

Professor Bovard, in answering Question 3, says that "if one is consistent in his belief in evolution he must include the inorganic world as well as the organic." "In other words, it must be a universal process." If it is a universal process, it is God's *only* process. If, therefore, miracles can be performed, they must be done as a *part* of evolution, which is claimed to be a scientific process by means of "resident" forces. But a miracle can not be classed as a part of a scientific process.

I must say that I fail to see the advantages claimed for evolution in the educational world. I think it has served a large purpose in misdirecting the efforts of the human mind. There are plenty of words that will express all the changes that have taken place without using the word "evolution," which has been misapplied in many cases.

Professor Bovard says, in Question 6, that those who teach the doctrine of evolution should know what they are teaching. If this limitation is strictly applied, as it should be, the teaching of the subject will rapidly disappear. As a philosophy of creation, based

on the scientific method, taken in all of its bearings, it is the most complex and difficult subject that has been considered by the human mind. The answers to my questionnaire, I think, show abundantly how poorly the subject is understood even by those who are well educated. It is not a subject for most boys in their teens.

Evolution, in its universal scope, is profoundly religious. It proposes to account for all religions, and, among them, the Christian religion, on the basis of naturalism, and, in doing this, it necessarily eliminates miracles, revelations, and all that is supernatural. It accepts the great ethical principles of the Bible as a necessity, for it has no ethics, its fundamental principle being that of pure selfishness. It has the ethics of "tooth and claw," the ethics that "might is right," which was the fundamental principle of Kaiserism, and which God repudiated.

The Christian religion is the greatest asset of the race. Under its guiding influence the human race has made its greatest progress. Yet the Bible has occupied a very subordinate place in the curricula of our highest institutions. These curricula have been crowded with Greek and Latin for the purpose, as has been claimed, of giving a liberal education. Students have learned to read Cicero, Sopho-

cles and Homer; they have studied something of the wonderful architecture and sculpture of the Greeks; have learned a little about Socrates, Plato and Aristotle; have scanned parts of Sophocles and Æschylus and Euripides; have read some about the age of Pericles, and have, in fact, got a glimpse of that wonderful Greek civilization, under which was a cesspool of immorality. Greek civilization failed for lack of a moral basis.

The Bible, the only book that condemns sin in all its forms, the only book that presents an ideal character of teaching and conduct in the person of Jesus of Nazareth, has been excluded from college curricula and trodden underfoot of men. And *why?* It is said that the formation of character ought to be the great aim of education. And yet we read remarkable things of Seniors in our highest institutions of learning; we read of their almost universal ignorance of the common facts of the Bible. How long will it take our higher education to come to itself?

University of Texas.

Office of the President.

Austin, Tex., July 16, 1920.

Prof. A. Fairhurst, Lexington, Ky.

My Dear Sir:—Replying to your letter of June 17, containing certain questions with

reference to evolution and the manner in which it is presented in the University of Texas, I am sending you enclosed a statement which has been drawn up by Prof. D. B. Casteel, of our Department of Zoology, who is in charge of this course. In a letter of transmittal to me, Professor Casteel says:

"I have endeavored to answer Professor Fairhurst's questions in an impersonal manner, according to the opinion of the average scientist, so that you can transmit them to him as of such origin."

Very sincerely yours,
ROBERT E. VINSON, Pres.

Answers by Prof. D. B. Casteel, of the Department of Zoology:

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"Yes; in a figurative sense, but not as an exact definition."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct ?

Answer—"It is essentially correct."

3. Is not evolution a universal process beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes

that have taken place, or that will take place in the future? In other words, is not evolution the one universal process, the one universal science?

Answer—"Yes."

4. Is evolution to be regarded as a science or only a theory?

Answer—"The doctrine of evolution is a theory in the sense that it presents the most reasonable general explanation of the data of science."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"As a scientific generalization, the doctrine of evolution bears no necessary relation to miracles."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teaching of the New Testament? In what way must this teaching be modified?

Answer—"Without doubt the teaching of evolution in the public schools results in a certain amount of mental unrest among thoughtful students. If properly imparted, however, such instruction will not offend, nor will it undermine the foundations of religious belief. In its broader sense, an evolutionary interpre-

tation of nature in no way denies the actuality of a controlling power, and this conception of the method of 'creation' will, if rightly understood, lead to a truer appreciation of the extent of 'the omniscience and the omnipotence resident in Divinity.' "

"Science is founded upon facts, and its generalizations result from examination of hypotheses, which are only accepted when they most reasonably explain available data. Religious belief is primarily founded upon faith and experience, and its attitude towards evidence is less critical than that of science. Science and religion approach the question of the method of creation from essentially different standpoints. If this fact is realized by the teacher and transmitted to his students, much mental confusion may be avoided."

"The idea of evolution should be imparted in a natural manner, as a logical generalization from scientific facts, with which students are becoming familiar. Its acceptance should not be required, nor its rejections be ridiculed. As a rule, immature high-school students are unprepared for a proper consideration of evolution."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"In general, the doctrine of evolution is accepted, and those branches of science and philosophy which it affects are taught from the evolutionary standpoint."

Professor Casteel, in answering these questions, shows that he recognizes the fact that evolution has vital bearing on the teachings of Christ as set forth in the New Testament. He seems to evade an answer to Question 5. Christ claimed to perform miracles. When the Professor answers "Yes" to Question 3, a part of which is "Is it not the one universal process, the one universal science?" he absolutely denies the possibility of miracles.

When evolution claims the whole field as a scientific process, it, of necessity, excludes every supernatural process.

The Professor says: "Without doubt, the teaching of evolution in the public schools results in a certain amount of mental unrest among thoughtful students." This means, to my mind, that the thoughtful pupils realize that the Christian teachings of the New Testament are being pushed aside in the interests of an unprovable hypothesis. Some of them, however, become so blinded that they *abandon the Bible as a book of divine authority.* The question which evolution raises is not simply one of theism, a question which

does not necessarily include the Bible as a revelation at all, but it *raises the question as to Christ's teaching, works and authority.* The latter, of necessity, involves miracles, while the former does not. The contention of the Christian is not simply for theism, but also for Christian theism, which involves the deity of Christ.

Many evolutionists grant theism in some sense, grant the ethics of Christ, but this is the limit of their teaching. This only annihilates Christianity as a system of religion. Of course, evolution does not necessarily deny "the actuality of a controlling power"—one of "omniscience and omnipotence resident in Divinity." The vital question arises: How has this Divinity manifested itself? Evolution, in its *universal* scope, says, "Only through natural processes;" and many add, "By means of resident forces."

I write in behalf of the thoughtful few, whose faith may be wrecked by a *scrap* of a theory. Evolution, when considered in its entirety, is so illogical and deficient of a basis of known and knowable facts that few who know all will be led to accept it. They go chasing a word that changes its color and meaning in the flight of time, and, like a will-o'-the-wisp, leads one through dismal intellectual swamps in the vain pursuit of that which

can never be overtaken. Some of the thoughtful few are led astray in the vain endeavor to put all on a scientific basis. *In what scientific terms can we interpret a mother's love, a pang of sorrow, or a sincere prayer to God?* The best and greatest things of the soul can not be analyzed by laboratory methods. They are above the scientific method.

Forty years of my life have been spent in colleges teaching various branches of science. Darwinism has been in vogue all of that time. Men are saying we make evolution the backbone of the teaching of all our sciences. In what way, I pray you, is chemistry, the queen of all the sciences, dependent on evolution? This theory has brought, and can bring, nothing of real value to chemistry. If the word "evolution" had not been heard of, still chemistry would be the supreme science. For awhile she was looked to for help to derive living matter from the inorganic world, but her failure to do this was complete, and, as I think, final.

Physics deals with mass action and with most of the forces of nature. Many of her methods are known, and results can be measured and weighed with exactness. Physics does not need the idea of evolution. Her processes do not depend upon it. Why talk of making it the guiding principle in physics?

That change has occurred everywhere as time has elapsed is evident, but change alone does not constitute evolution. The words "static" and "dynamic," that are now in common use, do not denote accurately conditions of minds that exist, for all minds accept dynamic, in the sense that changes everywhere take place.

There are many who seem to lack the logical sense. They still vote for Andrew Jackson, as their fathers and grandfathers did before them. Their ignorance is to them bliss. The multitude follows the brass band.

Some of the thoughtful few are being sidetracked on a fruitless theory that renders their lives largely unfruitful by paralyzing their moral and religious instincts. *Man without the Christian religion fails to attain his highest end. There is no perfect ideal to be found elsewhere.*

Many of the young men who have the "up-to-date thought," the "scientific method," and who are supposed to be free from all "religious superstitions," are made professors in our colleges, especially in the department of biology. A considerable number of these men are atheists, agnostics, or merely nominal Christians. These men teach the rising generation. What crop can we expect? Christianity has wrestled with and defeated all the

philosophies of the past, and now she struggles with this newest philosophy that has really become a fad among men. The public is ignorantly supporting the men who are sowing the seeds of destruction among them. I would not sound a false alarm, but the time is at hand when *the public should take notice* of the effects of its own ignorant acts.

"Oh, yes," says one, "of course, in the readjustment that must take place in the minds of the young between their religious teaching and the prevailing views of the scientific world, some will lose their faith." That is, accepting the theory of naturalism that is served up to them under the name of science as true, Christian religious beliefs will be given up so that Christian effort will be paralyzed or rendered negative, if not positively destroyed. I protest that much of this "science" (?) is only *vague theory.*

Professor Casteel says, in answer to Question 6: "If properly imparted, however, such instruction will not offend, nor will it undermine the foundations of religion." How can he reconcile this statement with his answer "Yes" to Question 3, which makes evolution "the one universal process, the one universal science"? If evolution is the one uni-

versal process, all things must happen as parts of the process. But it is evident that miracles, revelations, objective answers to prayer, the work of the Holy Spirit, the resurrection of the body of Christ, Pentecost, the efficiency of the blood of Christ, the virgin birth, and many other things, could not have happened as a part of this scientific process. I have asked in vain that the teacher of naturalism explain how he can reconcile the miracles of the New Testament with his process.

Professor Casteel says: "Science and religion approach the question of the method of creation from essentially different standpoints." And then he immediately adds: "If this fact is realized by the teacher and transmitted to his students, much mental confusion may be avoided." This, to my mind, is saying by the teacher: "I will show you how to reconcile two irreconcilables. I will use much camouflage by covering up my meaning with many superfluous words that mean nothing. By an intellectual sleight-of-hand, I will remove from your Christian religion all that you regard as supernatural, and leave you stranded with some kind of an unapproachable Deity of whose attributes science knows nothing. I will leave you in the hands of the great unknown and unknowable Power." This

is agnosticism, and, practically, atheism. (I use the word "science" here for the word "evolution.")

The great difficulty with evolutionists is that they are so anxious to make everything appear "scientific" that they lose sight of God and Christ and all revealed religion. And yet the Bible—God's revealed word—has done more for the betterment of mankind than all the wonders of science. Science may make a fat body and a fat pocket-book, and leave a lean soul. *There is nothing in science that appeals to conscience, that redeems from sin.* Science leaves the soul in the slough of despond.

Professor Casteel says: "The idea of evolution should be imparted in a natural manner, as a logical generalization from scientific facts, with which students are becoming familiar." This is certainly a commendable way of presenting the subject. With his answer to Question 3, that evolution is "the one universal process, the one universal science," let us apply the method. We will, according to this, consider it as "the one universal process." Accordingly we begin with the earth before life appeared. At that time the only things that could be known were the different kinds of matter and the forces of nature. It is certain to my mind that evolution did not pre-

pare the essential elements of the right kinds and quantities that are absolutely necessary for the bodies of living things. This could only be done by a controlling Deity. But the forces of nature were present. They were at work on the different kinds of matter. The earth for a long time was losing much energy in the form of heat. The chemical forces were active, producing a great number of minerals. The world was not undergoing evolution, but simply changing. The changes lacked the continuity, the genetic connection that must exist in organic evolution. Finally, the earth was in a condition to support living things. But evolution is the sole process of procedure. Its only scientific factors are matter and the forces of nature. These must produce a living organism from dead matter. This was spontaneous generation. *All scientists agree that spontaneous generation has not been proved, and that there is no hope of proving it.* I need not quote authorities at this time.

We suppose now that the first living thing appears. By supposition it is a cell, a living, self-nourishing, self-propagating organism of complex structure. The production of this first living thing a miracle? "No!" says the evolutionist; "that would not be 'scientific'! I must have science and the scientific

method. I don't need God to explain this." The result is, he does not and can not explain, but *assumes* that it has occurred. We travel this purely imaginary road of evolution till, by and by, we come to the one-celled animal which has feeling. Whence the feeling? We know no more about its origin than we know as to how life came. There is no conceivable connection between matter and force, on the one hand, and feeling on the other. Did not God perform a miracle and thus give sensation to the animal? "No! no!" cries the evolutionist; "that would not be scientific. We don't need God!" And so he explains his *fact* of *science* (?) by *assuming* it in the usual way. "And how does your evolution account for sex in the organic world?" "It does not account for it; but sex is here, and we *assume* that it came by the scientific method, for there is no other." "But the Bible says: 'God made them male and female.'" "That can't be true where law reigns and determines everything! So we go right along with our so-called scientific method—evolution—and we easily bridge the countless chasms with *assumptions that are used as facts* to help up to *more assumptions* that bridge other chasms. They are much easier to obtain than facts, and they serve equally well," says the self-conceited dogmatist.

PRINCETON THEOLOGICAL SEMINARY,

PRINCETON, N. J.

PRES. J. ROSS STEVENSON.

President Stevenson has handed these questions to me to-day (Nov. 16, 1920), with a request that I answer them. I shall be glad to answer further inquiries.

W. BRENT GREENE, Jr.,
Professor of Apologetics and Christian Ethics in Princeton Theological Seminary.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"No. Evolution presupposes creation, and is only one of many ways of the Creator's operation."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"No, unless God be regarded as sustaining and directing these resident forces and acting often supernaturally; *i. e.*, independently of them."

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place

in the future? In other words, is it not the one universal process, the one universal science?

Answer—"No. Divine intervention has played an even more important part in the development of the universe."

4. Is evolution to be regarded as a science or only a theory?

Answer—"Only a theory."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"It is not."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"Such teaching will destroy, and has already undermined, the faith of our people in the living God, who 'doeth according to his will in the armies of heaven and among the inhabitants of the earth.' It is the contradiction of the New Testament. No scheme of evolution can be accepted that does not (1) posit God at the start as the absolute creator out of nothing of the original germs; that does not (2) make this God immanent in the whole process of evolution, sustaining it and directing it, and so working His will through

it and by means of it, and that does not (3) regard God as transcendent, and, as such, intervening personally, and so putting into the stream what was not in it before, and could not have come out of it; for example, Christ and His miracles."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"In the theological seminary of which Dr. Stevenson is president, evolution is accepted and taught as *one* of the ways through which and by which God accomplishes His eternal purposes."

The above answers are so plain that comment seems useless. I believe, with the Professor, that evolution as frequently taught is undermining the faith of many of our people.

PRINCETON UNIVERSITY, PRINCETON, N. J.

PRES. JOHN GRIER HIBBEN.

(By Prof. E. G. Conklin, Professor of Biology, by request of President Hibben's secretary.)

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"Not unless the word 'creation' is used in a sense different from that commonly employed. Evolution is the origin of new

forms by transmutation, rather than by new formation.''

2. Is Le Conte's definition that evolution ''is (1) continuous, progressive change, (2) according to fixed laws, (3) and by means of resident forces,'' correct?

Answer—''Yes, except that the changes are not always continuous nor always progressive.''

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process, the one universal science?

Answer—''Yes, the same fundamental processes are everywhere involved. Evolution is transformation by new combination of units or elements, whether in chemistry or biology.''

4. Is evolution to be regarded as a science or only a theory?

Answer—''Many phases of evolution are demonstrable, others are only theoretical.''

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—''Evolution does not directly bear on any of the miracles, but science and scien-

tific laws do make improbable all supernaturalism.''

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—''Science, rather than evolution, teaches the universality of natural laws. The teachings of the New Testament are chiefly ethical. It is the best code of ethics extant, and should be taught from this standpoint, rather than as a text-book of science.''

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are professor of biology?

Answer—''It is fully accepted and freely taught to all students in the Department of Biology.''

It is evident that the evolution which Professor Conklin accepts eliminates miracles and all ''supernaturalism.'' That ''science'' ''teaches the universality of natural laws,'' in the sense in which he evidently means it, is not at all apparent to my mind. To the minds of most of those who make this statement the course of events is fixed; they run in grooves, with no hope of getting out; they represent

the process of determinism, that eliminates free will and destroys all moral responsibility. When we speak of the universality of law, we are likely not to include the action of free mind. The blind forces of nature would, and could, produce only certain fixed and invariable results. Mind so directs and controls the action of these blind forces that they do work that could not be done without it. We are accustomed to say that these forces act according to law; but it is perfectly evident that they are not acting in the same way when controlled that they do when not so controlled. The production by a falling weight, when controlled by mind, of light, heat, electricity, magnetism, chemical force, mechanical motion, to which I have before referred, is an example. With mind in control, the results of a given amount of force are not predetermined in the sense in which they are in the inorganic world. *There is no reign of law that determines any definite results which a given force will accomplish under the control of mind.*

The Professor states in Question 5 that "science and scientific laws do make improbable all supernaturalism." I do not see how any laws of science in any way conflict with supernaturalism. Some theories that men claim may conflict with the supernatural. *True science can not conflict with true religion, for God is*

th author of both. We can not know that God limits His work to the method of naturalism. Is it not possible that an infinite Mind can do things in ways unknown to man?

The question of the supernatural is one of evidence, but when we arbitrarily claim, as some do, that evolution, the scientific method, is universal, we at once eliminate the supernatural, and deny that any evidence can be offered in its support. This is not the logic of true science. Science is open to proof from all directions.

Professor Conklin applies the word "evolution" to chemistry and biology as if the two were on a similar basis. Chemistry involves the action of the free human mind, and it does not, and can not, include the continuity that must always prevail in biology. The word "evolution" can not be applied to chemistry in the biological sense.

BOSTON UNIVERSITY, BOSTON, MASS.

PRES. LEMUEL H. MURLIN.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"No. Evolution is a theory as to a method of creation."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2)

according to fixed laws, (3) and by means of resident forces,'' correct?

Answer—''This is a fairly good descriptive answer, if by 'resident forces' is meant forces that were made resident by 'some other power' than that of the being in which the changes were made.''

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process, the one universal science?

Answer—''In the main, I think you have given a very good answer, provided that process is made possible by 'a power not ourselves,' which the 'theistic evolutionist' says is 'a personal power'; namely, God.''

4. Is evolution to be regarded as a science or only a theory?

Answer—''A theory.''

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—''I should say that what we commonly call theistic evolution is entirely consistent with the teachings and words of Christ as given in the New Testament.''

6. What, in your opinion, has been, and what will be, the effect of the teaching in our public schools on the commonly accepted teaching of the New Testament? In what way must this teaching be modified?

Answer—"To answer this question we would have to define very carefully what is meant by 'evolution' and what is meant by 'commonly accepted teachings of' on the one hand and 'the New Testament' on the other. A proper definition of these two involves no conflict, and they are helpful to each other."

6. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"The doctrine of theistic evolution is generally accepted as the most satisfactory hypothesis of the method of creation and development of the world."

X.

LETTERS AND ANSWERS TO QUESTIONS

Dean Franklin N. Parker, Candler School of Theology, Emory University; Pres. C. A. Barbour, Rochester Theological Seminary; Pres. Henry C. King, Oberlin College; Pres. W. O. Thompson, Ohio State University.

Emory University.

Candler School of Theology.

Atlanta, Ga., Sept. 15, 1920.

Dear Professor Fairhurst:

Your letter of inquiry regarding the subject of the status of Darwinism, or the doctrine of the subject of evolution, in Emory University received.

I am not in a position to give you any exact information on this matter, as I have never canvassed the question with the professors in Emory University as such.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"I have to plead ignorance in regard to Cope's statement concerning evolution as the science of creation. I have not read this statement. I am familiar with Bergson's philosophic viewpoint and do not consider that it is adequate, as it lacks the definiteness that comes from a clear view of the personality of God."

2. Is Le Conte's definition that evolution "is (1) continuous progressive change, (2) according to fixed laws, (3) and by means of resident forces," correct?

Answer—"I consider Le Conte's definition, as you state it, insufficient. I do not think that the term "resident forces" covers the factors involved in history. In other words, I believe that there is the action of an immanent God necessary in the universe."

3. Is not evolution a universal process, beginning in the inorganic world, and flowing as a continuous stream through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process? The one universal science?

Answer—"It seems to me that some form of development is characteristic throughout the realm of nature, but I think there are a

number of problems in connection with this viewpoint that have not been solved."

4. Is evolution to be regarded as a science or only a theory?

Answer—"I think evolution should be considered in the light of a theory or hypothesis."

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—"The scientific doctrine of evolution, as stated by some evolutionists, is not consistent with the idea of miracles attributed to Christ in the New Testament. For example, if the sources of life and power are due entirely to resident forces in the realm of nature, we have no means of accounting for the resurrection of Jesus Christ, as the event is described in the New Testament."

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—"Any doctrine of development that leaves God out is, in my judgment, pernicious. I think there is such a thing as a type of theistic evolution which can be held by Christian men. Examples of this can be

seen in men like Professor Drummond, and I have known a number of Christian men who were theistic evolutionists, who seemed to find that they could harmonize the doctrine of development with their Christian thinking and Christian experience."

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"I can not tell you the extent to which the doctrine of evolution is accepted and taught in the university. I have never canvassed this matter as a general thing. I know that some of the men hold to the view of theistic evolution, but I have arrived at this knowledge by a merely incidental conversation on scientific subjects. I could not answer your question without interviewing or sending out a questionnaire.

"Permit me to make a correction in regard to the matter of the presidency of the university. I have been acting president, having declined the chancellorship and the presidency, as I prefer to hold my position as dean of the School of Theology. Bishop Candler is now chancellor of the university, and Dr. H. W. Cox is now holding the position of president under Bishop Candler."

Yours sincerely,

FRANKLIN N. PARKER, Dean.

That changes have taken place, both in the dead and the living world, through the long ages of the earth's history, no one informed doubts. If these changes are evolution, then all are evolutionists.

OBERLIN COLLEGE,

OBERLIN, O.

My Dear Professor Fairhurst:

It is pretty difficult to express oneself very satisfactorily on a subject like evolution through a questionnaire, though I am enclosing my answers to the questionnaire as a kind of supplementary statement.

My own views of the relation of Christianity to evolution are contained in three chapters of my "Reconstruction in Theology," published by the Macmillan Company: Chapters V., VI. and VII. The subjects of these three chapters are "Scientific Influences," "Miracles in the Light of Modern Science" and "The Special Bearing of Evolution."

Very sincerely yours,

HENRY C. KING, Pres.

1. Is Cope's statement that "evolution is the science of creation" correct?

Answer—"It might be said to be loosely true."

2. Is Le Conte's definition that evolution "is (1) continuous, progressive change, (2)

according to fixed laws, (3) and by means of resident forces,'' correct?

Answer—''In general. It should be held in mind, however, that there may be degeneration as well as progress under evolution.''

3. Is not evolution a universal process, beginning in the inorganic world and flowing, as a continuous stream, through the ages, including all material and psychological changes that have taken place or that will take place in the future? In other words, is it not the one universal process, the one universal science?

Answer—''Yes, if the term is used very broadly.''

4. Is evolution to be regarded as a science or only a theory?

Answer—''I should call it a theory.''

5. Is the scientific doctrine of evolution consistent with the miracles commonly attributed to Christ in the New Testament?

Answer—''Yes, so far as miracles are conceived as occurring under law.''

6. What, in your opinion, has been, and what will be, the effect of the teaching of evolution in our public schools on the commonly accepted teachings of the New Testament? In what way must this teaching be modified?

Answer—''See 5. The essential values of the New Testament are unaffected.''

7. To what extent is the doctrine of evolution accepted and taught in the university of which you are president?

Answer—"Quite universally I suppose, but not materialistically interpreted."

HENRY C. KING, Pres.

THE OHIO STATE UNIVERSITY.

W. C. THOMPSON, President.

My Dear Professor Fairhurst:

I have your letter of the 7th. Permit me to say that I am not competent to make reply to your communication. My personal opinions would not have any great value in the case. It has seemed to me that the only way a satisfactory answer for one's own mind can be secured on such problems as you propose, is to make an investigation of the literature in the case and reach one's own conclusion. My own reading intimates to me that definitions such as you refer to in Question No. 2 are always subject to criticism by men who are in substantial agreement with the man who makes the definition. Each man writes himself out in accordance with his own thinking, and probably makes some small contribution to the situation. You will find, in a recent number of the *Atlantic Monthly,* an article on "Darwinism," by John Burroughs, which,

to me, is one of the most enlightening and stimulating articles I have read for a long time.

Under these conditions, I should not be able to state to what extent the doctrine of evolution is accepted among the scholars of the country, or to what extent it is taught. I should probably make a general statement that in some form the doctrine of evolution is accepted by practically all the scholars of the country, but that would be unsatisfactory as a statement and would not meet the purpose of your questionnaire. I could not offer any objection on No. 6. On Question No. 5, a great many of the best Christian theological scholars of the country would answer yes; others would answer with some modification. I do not believe, therefore, that a reply to such a questionnaire has any practical significance or value.

Your very truly,
W. C. Thompson, Pres.

Rochester Theological Seminary.

Office of the President.

Rochester, N. Y., Sept. 10, 1920.

My Dear Professor Fairhurst:

I have your questionnaire regarding evolution. Rather than to answer in detail the

questions which you ask, I prefer to state the position of the members of the Faculty in the Rochester Theological Seminary. I think that I am not misrepresenting any one of them in so doing. So far as I know, in their thinking and their teaching all of the members of the Faculty accept the philosophy of evolution, if you define evolution as a continuous chain of causation, a part of which causation are the conscious and purposeful acts of the living God where in His infinite wisdom and love there is call for His immediate intervention.

We do not accept a merely materialistic evolution. Behind sequence and behind age-long development there is an originating and controlling Mind, and matter is without meaning apart from spirit. So far as I know, we all accept the sublime message of God's sovereignty in creation, and we certainly do not reject the miraculous element in the Bible as unhistorical.

A theory of materialistic evolution, wherever it is taught, is disastrous, and unspeakably so. I am afraid that such a theory is taught in some institutions of learning. I believe that a true theory of evolution can be made consistent with the historicity at least of some of the miracles recorded in the Scriptures. I myself am much more concerned with

the religious or spiritual truths contained in Scripture, than I am in the continual discussion of the conflict or the agreement between science and religion. For me, and I am sure for us all, the living Christ is the center of our thinking, and, I humbly trust, of our lives.

C. A. BARBOUR, Pres.

XI.

OTHER LETTERS AND ANSWERS

From State Superintendents of Public Instruction and Others.

BEFORE sending the foregoing questionnaire to the presidents of the various universities, I sent a list of questions to a considerable number of superintendents of public instruction of some of the leading States. The following explains itself:

California State Board of Education.

Office of Commissioner of Secondary Schools.

May 27, 1920.

Dear Sir:

Enclosed is a questionnaire filled out in pencil. It was directed to the Superintendent of Public Instruction some time ago, and it was referred by him to me.

I hope this information will not reach you too late to be of service to you.

Very truly yours,

A. C. Olney, Commissioner.

THE LETTER AND MR. OLNEY'S ANSWERS.

SUPERINTENDENT OF PUBLIC INSTRUCTION OF CALIFORNIA:

Dear Sir—My inquiry is to obtain information as to the extent to which the Darwinian theory, or any other theory of evolution, is being taught by authority or permission in the schools under your supervision. In what schools, if any, is the Darwinian theory, or any other theory, of evolution taught?

Answer—"High schools."

Do any of the subjects that are in any course, or courses, prescribed by the State, presuppose a knowledge and acceptance of the Darwinian, or any other, theory of evolution? If yes, what?

Answer—"No particular courses required by the State."

If teachers are not required to teach this doctrine, is there any objection to their teaching it?

Answer—"No."

What texts are recommended for teaching evolution in the schools?

Answer—"We recommended no particular list of texts. Under separate cover is a list of texts that may be adopted."

Is not evolution regarded as established science by those who teach it?

Answer—"Yes."

Do you have jurisdiction over the Normal schools?

Answer—"Yes; State Board of Education has."

Has any objection been offered by any patrons of schools in which evolution has been taught, to the teaching of the subject in these schools?

Answer—"I know of none."

Do you think that practically all the colleges and universities of the State accept and teach the theory of evolution?

Answer—"Yes, certainly."

I am trying to obtain reliable information as to the status of this subject in our educational systems.

Yours very truly,

A. FAIRHURST.

Commissioner Olney thinks that "yes, certainly," the colleges and universities of California accept and teach the doctrine of evolution. He also states that it is commonly taught in the "high schools." He says that "under separate cover is a list of texts that may be adopted," on the subject of evolution. I did not get this.

The most surprising answer in the list is, perhaps, the answer "yes" to the question,

"Is not evolution regarded as established science by those who teach it?" The answer of most of the presidents of colleges and universities is that evolution is only a theory or hypothesis. The public is being deceived by being made to believe that this theory is an important branch of established science. And then the teaching of it is made to take the place of important practical sciences that might well be taught in high schools.

STATE OF MICHIGAN.

DEPARTMENT OF PUBLIC INSTRUCTION.

My Dear Professor Fairhurst:

I have your inquiry of the 27th. I am a little surprised at the inquiry as I have never heard the matter raised. We do not teach evolution as a separate subject in any of the schools, but it is taught as a part of all science, and I had supposed was universally accepted.

We have no text-book on the subject, but I suppose it is rarely that a teacher of biology does not mention it. I have no personal jurisdiction over the Normal schools, except in my capacity as a member of the State Board of Education. [Here follow the names of presidents of the four Normal schools.] As far as

I know, all the colleges and the university accept some form of evolutionary theory.

Very truly yours,

T. E. JOHNSON, Supt.

STATE OF ILLINOIS.

DEPARTMENT OF PUBLIC INSTRUCTION.

SPRINGFIELD, Apr. 19, 1920.

Dear Mr. Fairhurst:

The laws of Illinois require that certain subjects shall be taught in the public schools, but there has never been any attempt to say to school authorities what they shall not teach. High schools, colleges and Normal schools are left free to use their own judgment as to what they shall say about evolution.

I am sending you under separate cover a copy of the educational directory of Illinois.

Yours sincerely,

F. G. BLAIR, Supt.

STATE OF INDIANA.

STATE DEPARTMENT OF PUBLIC INSTRUCTION.

INDIANAPOLIS, Apr. 23, 1920.

Dear Sir:

Your letter of recent date was duly received. In reply will say that the matter of teaching the Darwinian theory of evolution has not come to my attention for some time.

It does not seem to be a topic that is attracting special attention or causing unusual discussion in our State at present. So far as I know, the theory of Darwin is generally accepted. However, in order that you may conduct an investigation throughout the State, as seems best to you, I am sending you, under another cover, a copy of our State directory. In it you will find the names of all the college and public-school officials in Indiana. I am also sending you a copy of our high-school course of study. From it you can get some information as to just what we are doing in a scientific way in our high schools.

If we can serve you further, please let us know.

Very truly,

L. N. HINES, State Supt.

THE UNIVERSITY OF THE STATE OF NEW YORK.

THE STATE DEPARTMENT OF EDUCATION.

ALBANY, Apr. 21, 1920.

Dear Sir:

Your questionnaire of April 15th regarding the theory of evolution is before us.

I regret that we have no definite data concerning the teaching of the theory of evolution in the schools of this State. No positive answers to your questions could be given without sending out to each of the State schools for a report. All that I can give you in the

way of reply would be simply impressions, which may or may not be correct.

It is my general impression that the theory of evolution is accepted and taught in practically all of the schools and colleges of this State, but possibly not exactly in the form in which Darwin presented it, but in the general conception that the higher forms are evolved from the lower forms in some way.

I have known of a few cases in which objection has been made to the teaching, but I think the objection has not been taken seriously. Very truly yours,

CHAS. F. WHEELOCK,
Assistant Commissioner for Secondary Education.

THE COMMONWEALTH OF MASSACHUSETTS.

DEPARTMENT OF EDUCATION, STATE HOUSE.

Division of Elementary and Secondary Education and Normal Schools.

BOSTON, May 6, 1920.

Dear Sir:

Your inquiry relating to the teaching of the Darwinian theory, or any other theory, of evolution in the schools of this State has been referred to me.

The cities and towns of Massachusetts are not prohibited by law from teaching such a

theory. The superintendent of the schools of Boston reports that the Darwinian theory is not taught in the public schools of Boston. I regret to state that we have no information with regard to the practice in the other schools of the Commonwealth.

Under separate cover, I am sending you an educational directory, which will give you the names of the superintendents of the schools in this State. Very truly yours,

ROBERT I. BRAMBALL.

WESTERN ILLINOIS STATE NORMAL SCHOOL.

OFFICE OF THE PRESIDENT.

APR. 30, 1920.

My Dear Sir:

The letter which you addressed to D. P. Hollis has fallen into my hands to be answered, because I am the president of the Western Illinois State Normal.

I wish to say that if you mean by Darwinism that man's forefather was an ape, we are not resting any of our Normal School courses on that theory. We are, however, very largely dependent upon the general theory of evolution in all our scientific courses and also in our social sciences. I think every modern educational institution in the United States accepts the general theory of evolution. My impression is that they do not

count it a science, but rather look upon it as a world theory which they are willing to accept. The general meaning of evolution which we accept is that the world as it is to-day is a development of the condition in which it was found thousands and thousands of years ago, and that society is an outgrowth of the true condition in which it was found in ancient times. I think this is about all that need be said about the matter.

Yours very truly,

W. P. MORGAN, Pres.

EASTERN KENTUCKY STATE NORMAL SCHOOL.

RICHMOND, Apr. 20, 1920.

Dear Sir:

Replying briefly to your letter, I will state that in the four years that I have been in this school, I have never heard the word "Darwinism" mentioned on this campus. If the subject has ever been mentioned in a class, I have never heard of it. This is a Normal school, and we are engaged in the problem of training teachers to teach school, and not concerning ourselves about such subjects as you have mentioned.

We have a library of something like ten thousand volumes, and I have not the time nor the inclimation to hunt up the names and

authors that might deal incidentally with evolution.

I hope that this reply will be satisfactory to you. Very truly yours,

T. J. COATES, Pres.

The last two writers evidently need to be brought into harmony as to their methods of training teachers. President Morgan could not teach the sciences and sociology without the aid of evolution, while President Coates, it seems, entirely ignores the subject.

It may be that the mental makeup of the students in the two regions will explain it. If President Coates will only get this theory on wheels in his school, he may witness a marvelous awakening among his students.

Personally, I may say that in my experience of forty years in teaching the various sciences of a college course I never felt the necessity of calling to my aid the Darwinian or any other theory of evolution, nor do I believe that it is necessary to do so at present. Its advantages are imaginary.

The fact is, I think, as I have claimed, that *evolution could not take place where results are due to the workings of free intellect, for the reason that there can be no genetic continuity.* This applies to human achievements in *all* fields.

President Morgan is evidently referring in his definition to the changes and the progress that have taken place during the long geological and historical past. All changes of all kinds can not, with any propriety, be included in the word "evolution" in the Darwinian sense.

XII.

SOME CONCLUSIONS.

IN preceding articles I have claimed that man is a free moral agent, and that, as such, he is not, and can not be, under the absolute dominion of physical force. Free mind dominates the forces of nature, and thus brings about innumerable results that could not otherwise be accomplished. These results are produced mostly by changing one force into another and by overcoming force by means of force. Everywhere in nature results are brought about by conflict of forces. An infinite God, by controlling forces that are known, and possibly by others that are unknown, to man, may bring about results that we call supernatural, by means of conflicting forces, as man does, but without "violating" the "laws of nature." I have explained that "laws of nature" are the methods according to which forces act, and that these methods may be determined by free mind, both of man and God. It is easy to believe that God has a larger controlling power than man. I have

also claimed that the laws of nature are beneficent and necessary for the existence and welfare of man.

Again, I have insisted that the simple substances present in the world that are necessary components of the bodies of all living things, and the presence of a large number of elements that are useful to civilized man, and the preparation of a vast number of things conducive to man's physical and spiritual welfare, declare in an unmistakable way the existence of a wise and beneficent Creator, who was looking forward through the ages to the coming of man.

The existence also of the forces of nature in such forms and quantities as to be most useful to living things speaks of a beneficent God. *All this could not be purely accidental.* The presence of the right kinds and quantities of matter and forces is entirely beyond the process of evolution.

If intelligent purpose must be assumed for a beginning, it is evident that the time would never arrive when purpose would be unnecessary. If God began it, then God is all the way through the ages.

I have also endeavored to show that "scientific evolution," based on "matter, motion and force," which, by assumption, were the only things present before life appeared,

utterly fail to account for the present and past condition of things in the world.

That *"life comes only from life"* is a known *fact,* which has been accepted as a *fact,* That life can come from death, all experiments and observations fail to prove. Some evolutionists are still groping for a living organism whose parent is the mineral world, but they look in vain. Without a first living thing born of the mineral world, evolution has no beginning. All along the assumed line of evolution from "monkey to man" the process is bridged with *assumption* instead of *facts.*

"Matter, motion and force" not only fail to produce spontaneous generation, but they utterly fail to explain the existence of any psychological power whatever. Feelings of many kinds, numerous instincts and the faculties of the human mind are, admittedly, not to be accounted for by these factors alone.

From the answers to my questionnaire, it is evident that those who have answered entertain different views as to the meaning of the word "evolution."

Some include in the word "evolution" all the changes that have taken place in time. As I have already stated, all people accept the idea of changes from the beginning till

now, but these changes can not all be included in the word "evolution."

Others apply the word indiscriminately to all branches in a college curriculum. This is plainly inadmissible. Progress, however, has taken place in every subject.

Again, some limit the use of the word to biology and history. I have claimed that this is a wrong use of the word. Zoology demands genetic continuity, but this is not possible in any subject that is due to the action of free mind.

Few, if any, confine the use of the word strictly to "organic evolution," to which it especially belongs.

The use of the word "evolution" with regard to the organic world was soon enlarged by Herbert Spencer and others, and more recently by Profs. H. W. Conn and H. F. Osborn, and many other evolutionists, so as to make the process universal. Its only data were "matter, motion and force." These were the only factors with which to account for all the changes in the physical and psychological worlds. With these as the only factors, a philosophy of creation has been constructed known as naturalism—a false philosophy, which dispenses with God and all that the Christian regards as supernatural. *This theory is rooted and grounded in many of our higher*

institutions of learning, and is taught by men who are protected under the plea of "academic liberty," and who are often being paid for their work out of the public treasury. *This so-called scientific method is wrecking the Christian faith* and destroying the usefulness of multitudes of young men and women. It is against this view of evolution that I call particular attention. That this condition exists, I am sure that no one who knows the facts will deny.

I sound no false alarm. Professor Le Conte said: "There can be no doubt that there is at present a strong, and, to many, an overwhelming, tendency toward materialism. . . . Materialism has become a fashion of thought; and, like all fashions, must be guarded against. This tendency has been created, and is now guided, by science. Just at this time it is the strongest in the department of biology, and especially is evolution its stronghold."

Pres. C. A. Barbour, of Rochester Theological Seminary, recently wrote: "A theory of materialistic evolution, wherever it is taught, is disastrous, and unspeakably so. I am afraid that such a theory of evolution is taught in some institutions of learning."

Prof. W. Brent Greene, of Princeton Theological Seminary, writes of the teaching of evolution: "*Such teaching will destroy, and*

has already undermined, the faith of our people in the living God.''

Le Conte says: ''The day is past when skepticism sneered and derided the Scriptures and Christianity and Christ. On the contrary, it is now respectful, and apparently friendly, and even patronizing. The old skepticism was an open enemy; the new skepticism is the false friend. It approaches with the utmost politeness, inquiring, 'Art thou in health, my brother?' and then it smites under the fifth rib! It says of the Scriptures that it is the noblest of human productions; full of the most glowing poetry; the simplest, yet the sublimest, narratives; the divinest system of morals. It says of Christ that He is the greatest of all reformers, the greatest and purest of all human characters. It says of Christianity that it is the noblest of all institutions, but that it is human, and, like all things human, it must pass away, and is, indeed, now passing away.

''Their mode of reasoning is ingenious; it is this: All things are *relative,* and therefore transitory; every system of doctrine is true, and can be true, only relatively; that is, for us in our present state of advance: every institution is good or bad only relatively; that is, for us in our particular stage of civilization, and, therefore, every system of doctrine and every institution is necessarily only sub-

servient to the progress of humanity; and, having subserved that purpose, it must pass away; having run its cycle, it becomes useless, and is cast off like a worn-out garment, and makes way for some higher system or institution, etc.

"Have we indeed reached the Christian ideal, and do we already see another and a higher? What is the Christian ideal of morality? It is supreme love of supreme perfection, the perfect love of the absolute ideal, and love to our fellow-men equal to that given to ourselves. What is the Christian ideal of character? It is that which is presented to us in the life and character of the divine Master. Have these ideals, then, been already left behind, and do we see another and higher? On the contrary, it is not only yet unattained, but absolutely unattainable. Even the skeptic must admit this. It is an absolute, not a relative, ideal; it is impossible for the human mind even to conceive a higher. An absolute ideal! What is this but a *divine ideal?* . . . But the ideals of Christianity, the truths of Christianity—these are not human, but divine; are not fleeting, but eternal."

Again, he says: "I have already said that nature cultivates primarily the intellect, while Scripture cultivates primarily the moral nature of man. Now, it is his moral nature

which is the distinctive characteristic of man; this it is which is the very essence of humanity. Without this we might regard him only as an intelligent animal."

Again: "Do you not observe, then, that in all these subjects—subjects which are the most closely connected with our highest interests—the perception of truth depends not so much on the vigor and clearness of the intellect as it does upon the purity of the heart?"

Concerning the first chapter of Genesis, he says: "By far the grandest interpretation of this chapter is that which makes the creative days great periods of time. It is not only, however, the grandest, but is also by far the most accordant, both with the teachings of nature and the teachings of the Scripture, and therefore the most rational. That it is accordant with the teachings of nature is admitted by all; but many will perhaps doubt its accordance with the general teachings of Scripture—many regard it as a construction forced upon us by nature. I can not think so. For, observe, the word 'day' is often used, both in Scripture and in common language, to mean an indefinite period of time. Observe, second, that in the poetry of the Scriptures it is *nearly always* used in this indefinite sense. Observe, third, that in

prophecy it is *always* used in that sense. In other words, in subjects that lie within the limits of our human experience, the word 'day' is used in Scripture in its usual signification of a period of twenty-four hours; but in *every case in which the subject is one which transcends human experience, it is used as an indefinite period of time.*"

Also: "The order of creation revealed in the Scripture is the order of the evolution of the material universe and of the organic kingdom revealed in nature. Is this genius? If it is genius, it is a genius that has anticipated the latest results of science."

In the "Origin of the World," by Sir William Dawson, of McGill University, Canada, one of the highest authorities in geology, the author of many books and a recognized leader in the world's thought, he defends the Mosaic account of creation, the inspiration of the Bible and the creation of man as set forth in Genesis. He says: "Man was created, as the Hebrew literally reads, the shadow and similitude of God—the greatest of the visible manifestations of Deity in the lower world, the reflected image of his Maker, and, under the supreme Lawgiver, the delegated ruler of the earth."

Again: "Science can not successfully long isolate itself from God."

Concerning geology he says: "Geology as a science is at present in a peculiar and somewhat exceptional state. Under the influence of a few men of commanding genius belonging to the generation now passing away, it has made so gigantic conquests that its armies have broken up into bands of specialists, little better than scientific banditti, liable to be beaten in detail, and prone to commit outrages on common sense and good taste, which bring their otherwise good cause into disrepute. The leaders of these bands are, many of them, good soldiers, but few of them fitted to be general officers, and none of them able to reunite our scattered detachments. We need larger minds, of broader culture and wider sympathies, to organize and rule the lands which we have subdued and to lead on to further conquests.

"The only remedy in the case is a higher and more general scientific education; and yet I do not wonder that many good men object to this, simply because of the difficulty of finding honest and competent teachers, themselves well grounded in their subjects, and free from that common insanity of specialists and self-educated men which impels them to run amuck at everything that does not depend on their own methods of research."

The above remarks with regard to the shortcomings of the specialist are timely.

This is an age of specialists. In biology they are still slicing incipient chicks and dilating upon the wonders of gnats' toenails, hoping thereby to prognosticate the course of the universe. The ideas of many of them are as limited as the drop of water in which billions of microbes float. It would be as possible for one of these microbes to comprehend the course of events as it would be for one of these specialists, who has no general view of the order of things. I certainly do not belittle the microscope, but I do belittle the biped who makes of himself nothing but a microscope. A human telescope, if we must choose, would be better.

It is evident from answers to my questionnaire that quite a number of those in chief places eliminate miracles and all that is supernatural, in the Christian sense, from the New Testament, and accept only the *ethical* part of Christ's teaching. *This is a rejection of the Bible as a book of authority in religion.*

With faith thus destroyed, all religious ordinances and worship rest upon no foundation except human authority.

Professor Le Conte well says: "I do believe that we can not do a man a greater and more irreparable injury than to unsettle in any way his religious faith. Faith is the very foundation of all noble activity."

Kant says: "There is a limit where the intellect fails and breaks down, and this limit is where the questions concerning God and freedom and immortality arise."

Goethe says: "Epochs of faith are epochs of fruitfulness; but epochs of unbelief, however glittering, are barren of all permanent good."

Bacon says: "There never was found, in any age of the world, either philosopher or sect or law or discipline which did so highly exalt the public good as the Christian faith."

F. W. Robertson says: "To believe is to be strong. Doubt cramps energy. Belief is power."

Darwin's son, in writing of his father, says: "There is natural law, physical law, and Mr. Darwin would have no other. . . . Undesigned variability means to Mr. Darwin only accident and chance. . . . To Newton there might be a God who created the things themselves, but to Darwin neither the one nor the other was a need."

Professor Conn says: "The greatest strength of the 'law of natural selection' has been a substitute of 'natural law' for supernatural intelligence."

Henry F. Osborn says: "Chance is the very essence of the original Darwinian selection hypothesis of evolution."

In "The Descent of Man" (Vol. II., p. 378), Mr. Darwin does not seem to agree with the above views when he says: "The birth both of the species and of the individual are equally parts of that grand sequence of events which our minds refuse to accept as the results of blind chance. The understanding revolts at such a conclusion."

If we can not consider the events "as the results of blind chance," at which the "understanding revolts," we must accept the only other alternative as his opinion, which is the design of an intelligent creation. Mr. Darwin's statement, coming at the conclusion of his long labor on organic evolution, represents his final and most mature opinion as to the cause of creation.

On page 249 of "The Origin of Species," he writes: "I see no good reason why the views given in this volume should shock the religious feelings of any one." This language implies that he did not by his writings intend to deny the existence of God or the truth of the Christian religion.

He speaks about "the laws impressed on matter by the Creator," which as "secondary causes" produce evolution. He said: "It is mere rubbish thinking of the origin of life." Also, that it is impossible to account for the simplest mental power. He did not place

himself with those who rely exclusively on matter, motion and force as the final cause of evolution.

Logically, however, if secondary causes alone—*i. e.*, matter, motion and force—acting by chance, are all that he needed to account for the working of his theory from the high forms with which he began up to man, the same process, it would seem, could have produced these forms from the beginning; and this, as claimed by many evolutionists, necessarily involved spontaneous generation.

A second class, who regard themselves as theistic evolutionists, accept evolution as God's *only* method of working, thus eliminating the supernatural by naturalism.

As I have stated, this method destroys the Bible and the Christian religion, and gives only natural religion.

A third class accept both the natural and the supernatural as set forth in the Bible; they accept both evolution of species and miracles. This I take to be the attitude generally of those who claim to be Christian evolutionists. Evolution, however, in the proper sense is pure naturalism, founded on "matter, motion and force" as the only scientific basis, or, if God is admitted, His work is confined strictly to the naturalistic method.

It is evident that *the great question is God or no God?* Or, if God is, is He confined to *naturalism?* Are there intelligence and freewill in and through it all? Shall a materialistic philosophy based upon intelligent force, acting by chance, banish from the human mind and heart the living God, the Father of all? Shall man be regarded as simply the highest brute? Is man to exist "without God and without hope in the world," entering the future with uncertain tread, or shall he face it with unshaken faith as to the realities beyond and with a hope "anchored within the vale"?

David exclaimed: "My heart and my flesh cry out for the living God."

Bacon said: "They that deny a God, destroy man's nobility; for clearly man is of kin to the beasts by his body, and if he be not of kin to God by his spirit, he is a base and ignoble creature."

"A foe to God was never a true friend to man."

In conclusion, I may say that what I have written is aimed especially at the teaching of a godless theory under the name "evolution," and at those views of evolution that eliminate the supernatural as taught in the Bible.

It is said that a recent census in France gives six million atheists in the country. A

correct census would, no doubt, give to Germany and some other European countries an equal per cent. The effects of godlessness are manifesting themselves in all countries. This is partly due to the peculiar conditions growing out of the World War.

Our public-school system is supposed to conserve the interests of the people, but these interests can not best be advanced by the teaching of a godless theory of the universe.

I feel sure that a considerable per cent. of professors' chairs in many of our leading universities are occupied by agnostics and atheists. They are, for the most part, quietly doing their deadly work with those who are to teach the present, and, through their influence, the future, generations.

These professors are protected by what is called "academic liberty," or "academic freedom." They sit, as it were, in the steel vaults built by the millions of dollars of great universities and blandly smile at the protests that are made against their godless teaching. If they condescend to notice objections at all, it is to say that their teaching is misunderstood.

At the same time they "laugh up their sleeves," and say to themselves, "The old fools are casting their eggs against stone walls."

Is it true that the public has, in various ways, enthroned the godless to teach the young

and assigned them godlike power? *Has the Christian public no way to reach and dethrone the atheists who sit in public places and devitalize the souls of men?* Can majorities reach and dethrone them? Can the united protests of all God-fearing Christian ministers have the desired effect?

Many of the clergy have been led ignorantly to accept a false theory of evolution, and this quiets their apprehensions so that they may feel that all is well. But *all Christian ministers stand for God and against atheism.* A united clergy might cleanse the Augean stable of its filth of atheism. All would rejoice if it were done. But we are told that each clergyman must devote himself to looking after his own flock.

Is it not time for Elijah to come calling down fire from heaven and bringing his sword to slay?

The Christ has said: "Every plant, which my heavenly Father hath not planted, shall be *rooted up.*"

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